

Transportation
Library

TRANSPORTATION LIBRARY

OCT 8 1947

Transportation
Library

TF

1
R13

RAILWAY AGE

OCTOBER 4, 1947

FOUNDED IN 1856

Burlington Fleet of General Motors Passenger Diesels Rolls Up 65 Million Miles

The Burlington, first among railroads to put General Motors Diesel passenger power in regular scheduled service, last month whizzed past the 65 millionth milepost with its fleet of GM Diesel passenger locomotives. This is in addition to the millions of miles traveled by Burlington GM freight locomotives and the many hours its GM switchers have worked.

Among the 46 Burlington Diesel

units recorded, 26 have operated more than 1,000,000 miles; five have exceeded 3,000,000 miles. And GM Diesel locomotive unit No. 9907 B, which entered service in October 1936, has covered a total of more than 3,775,000 miles, a record we believe is unsurpassed by any other self-propelled vehicle of land transportation.

The record of the Burlington Fleet is further distinguished by the

fact that these locomotives have piled up their enormous mileage on the severest fast schedules with high on-time performance.

When GM Diesels ushered in the streamline era, they lifted the level of virtually all travel. Their amazing operating and maintenance economies are leading the way to further modernization on many American railroads.



GENERAL MOTORS
LOCOMOTIVES

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS

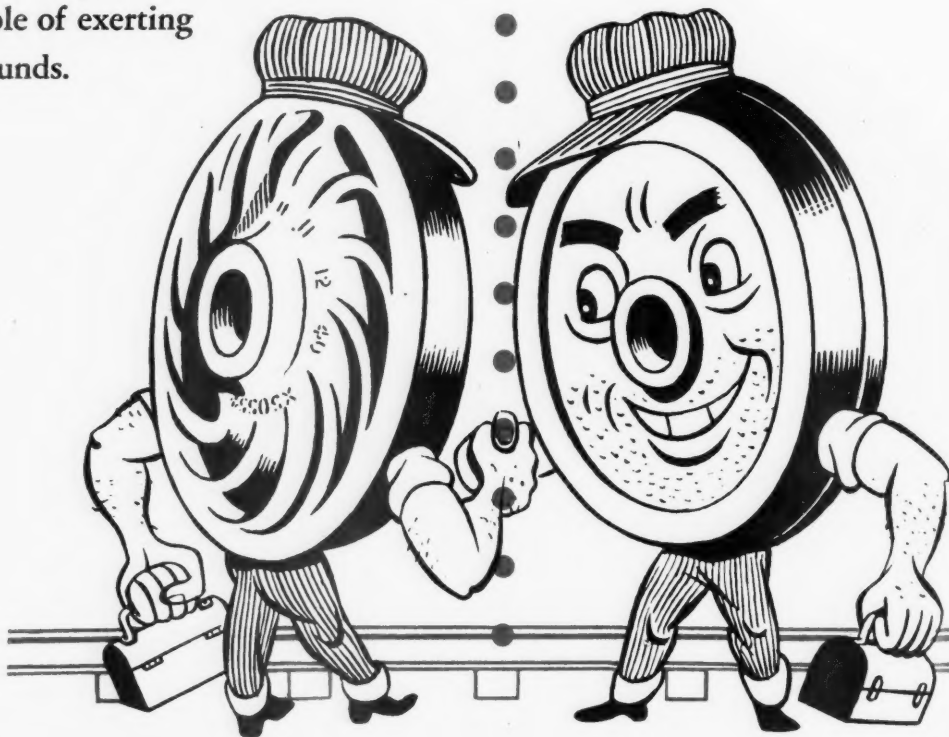
LA GRANGE, ILL.

BROTHERS UNDER THE SKIN

*T*he Tough Guy, today's Chilled Car Wheel, has brothers by the tens of thousands. Each embodies what we at AMCCW have aimed at in our uniform specifications and uniform inspections. Their uniformity makes them true "brothers under the skin."

They are brothers under the skin metallurgically speaking. Depth of chill tests . . . mottle zone control procedures — these are two of many steps taken to assure long service life for freight car wheels.

And, as an instance of the modern equipment we at AMCCW use in physical tests, a powerful new hydraulic machine now gives breakdown tests of wheel flanges — a machine capable of exerting pressures up to 200,000 pounds.



ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS

445 NORTH SACRAMENTO BOULEVARD, CHICAGO 12, ILL.

American Car & Foundry Co. • Canadian Car & Foundry Co. • Griffin Wheel Co.
Marshall Car Wheel & Foundry Co. • Maryland Car Wheel Co. • New York Car Wheel Co.
Pullman-Standard Car Mfg. Co. • Southern Wheel (American Brake Shoe Co.)

5025

Transp. Lib

Railway Age

With which are incorporated the Railway Review, the Railway Gazette,
and the Railway-Age Gazette. Name registered in U. S. Patent Office.

Vol. 123

October 4, 1947

No. 14

PUBLISHED EACH SATURDAY
BY THE SIMMONS-BOARDMAN
PUBLISHING CORPORATION, 1309
NOBLE STREET, PHILADELPHIA
23, PA., WITH EDITORIAL AND
EXECUTIVE OFFICES AT 30
CHURCH STREET, NEW YORK 7,
N. Y., AND 105 W. ADAMS STREET,
CHICAGO 3, ILL.

WASHINGTON 4, D. C.: 1081 NA-
TIONAL PRESS BUILDING—
CLEVELAND 13, TERMINAL
TOWER—SEATTLE 1: 1033 HENRY
BUILDING—SAN FRANCISCO 4:
300 MONTGOMERY STREET.
ROOMS 805-806—LOS ANGELES 14:
530 WEST 6th STREET—DALLAS
4: 2909 MAPLE AVENUE.

SAMUEL O. DUNN, CHAIRMAN.
JAMES G. LYNE, VICE-PRESI-
DENT—ASSISTANT TO CHAIR-
MAN. HENRY LEE, PRESIDENT.
ROY V. WRIGHT, VICE-PRESI-
DENT AND SECRETARY. C. MILES
BURPEE, F. H. THOMPSON, F. C.
KOCH, R. E. THAYER, H. E. Mc-
CANDLESS, S. WAYNE HICKEY,
VICE-PRESIDENTS. J. T. DeMOTT,
TREASURER. RALPH E. WESTER-
MAN, ARTHUR J. McGINNIS, AS-
SISTANT TREASURERS.

SAMUEL O. DUNN AND JAMES G.
LYNE, EDITORS. ROY V. WRIGHT,
MANAGING EDITOR. C. B. TAVEN-
NER, ASS'T MANAGING EDITOR.
NEAL D. HOWARD, WESTERN
EDITOR. C. B. PECK, ALFRED G.
OEHLER, E. L. WOODWARD, J. H.
DUNN, H. C. WILCOX, CHARLES
LAYNG, WALTER J. TAFT, M. H.
DICK, W. H. SCHMIDT, JR., C. L.
COMBES, MAURICE PEACOCK,
SHERMAN DAVIS, FRED C. MILES,
WALTER L. TURNER, JR., G. J.
WEIHOFEN, GEORGE JOHNSON,
HENRY E. MICHAEL, ROBERT G.
LEWIS, JOHN W. MILLIKEN.
LIBRARIAN: EDITH C. STONE.
EDITORIAL ASSISTANT: ELAINE
C. FARRAR.

C. MILES BURPEE, BUSINESS
MANAGER.

SUBSCRIPTIONS INCLUDING 52
REGULAR WEEKLY ISSUES, AND
SPECIAL DAILY EDITIONS PUBLISHED FROM TIME TO TIME IN
NEW YORK OR IN PLACES OTHER
THAN NEW YORK, PAYABLE IN
ADVANCE AND POSTAGE FREE.
UNITED STATES, U. S. POSSES-
SIONS AND CANADA: 1 YEAR,
\$6.00; 2 YEARS, \$10.00; OTHER
COUNTRIES NOT INCLUDING
DAILY EDITIONS: IN WESTERN
HEMISPHERE 1 YEAR \$10.00; 2
YEARS \$16.00; OTHER COUNTRIES
1 YEAR \$15.00; 2 YEARS \$25.00.
SINGLE COPIES, 50 CENTS EACH.
H. E. McCANDLESS, CIRCULA-
TION MANAGER, 30 CHURCH
STREET, NEW YORK 7.

In This Issue

Bridge and Building Men at Chicago Page 42

Committee reports and addresses covers a broad range of subjects.

I. C. Dayliner Builds Passenger Traffic 51

"City of New Orleans" attracts new travel and boosts revenues on 921-mile run.

Musical Entertainment on Trains 57

Santa Fe installation of sound equipment on 23 trains uses four channels.

EDITORIALS

Do American Shippers Really Want Efficient Transportation	39
Color an Aid to Railroading	41

GENERAL ARTICLES

Bridge and Building Men Seek Answers to Many Problems at Chicago	42
Freedom Train on Year-long Tour	47
Coal Station Operating Requirements	49
I. C. Dayliner Builds Passenger Traffic	51
Diesel Locomotives on Pikes Peak	52
For Air Transport, the Taxpayer Pays	53
Factors in Cost and Production of Ties	55
Musical Entertainment on Trains	57

NEW DEVICES 60

GENERAL NEWS 61

OPERATING REVENUES AND EXPENSES 86

Railway Age is a member of Associated Business Papers (A. B. P.) and Audit Bureau of Circulation (A. B. C.), and is indexed by the Industrial Arts Index and by the Engineering Index Service.



PRINTED IN U. S. A.

Get Switches closer together...

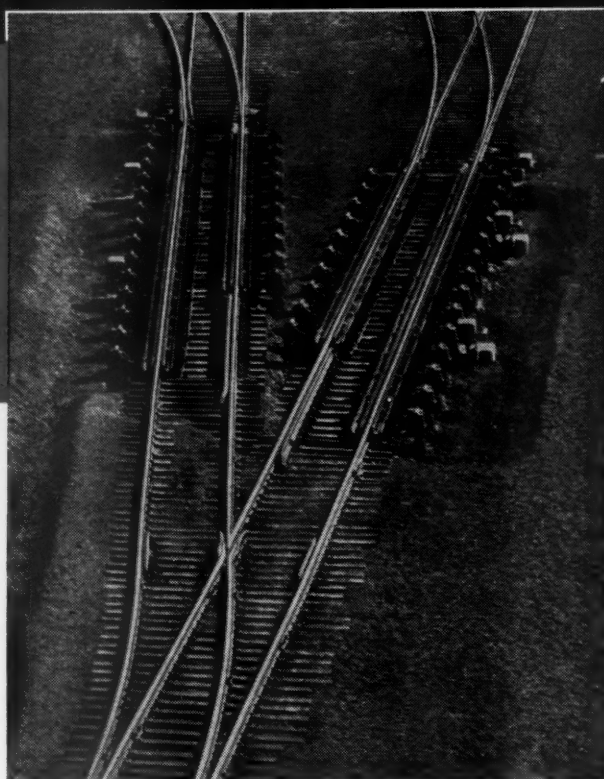
NOT THIS WAY

BUT THIS WAY

*and save yard space
with
"Union" Retarders*

Unit-construction—exclusive feature of "Union" Car Retarders—can save valuable space in your classification yards by reducing the distance required between switches on the leads from hump to classification tracks.

"Union" Car Retarders are made up of a number of units—each with its power cylinder, brake beams, and shoes—and each only 6¼ feet long. Any number of these units can be installed on either rail, and the number on one rail need not be the same as on the other. As illustrated, this permits assembling the retarders close to switches. And because *only the required sections of retarders* need be installed, and no extra track is required for detector track circuits (as indicated in red), maximum use is made of a minimum of space between switches.



This is one of several ways in which "Union" Car Retarders can shorten the distance between hump and classification tracks—reduce the overall space required for the yard. Let our engineers explain the others, and help you plan a hump yard area of maximum efficiency in a given space.

UNION SWITCH & SIGNAL COMPANY

SWISSVALE



PENNSYLVANIA

NEW YORK

CHICAGO

ST. LOUIS

SAN FRANCISCO

MUS
has u
ger t
ment
cars
corde
casts,
tus is
this i
vided
cars,
wire-
"popu
made
regula
can b
to cal

FUE
merce
lookin
likely
media
ported
this w
use o
a tim
pacity
consum
pend
meet
report
achiev
ficient
consid
oils c
marke
these
ticable

CLIM
up Pil
Electr
article
acteris
roller
the pr
car ah
base d
with a
only 1

FRE
the Fr
definit
on pag
has be
flocked
see it
exhibi
ments
provid
precau

AIR I
prehen
political
mercia
roads l
of the
of Tra
five-ye
eral ch
commi

The Week at a Glance

MUSIC ON TRAINS: The Santa Fe has undertaken to equip 23 through passenger trains with four-channel sound equipment so that lounge space, bedrooms, dining cars and coaches may be supplied with recorded music, commercial radio broadcasts, or train announcements. The apparatus is described in an illustrated article in this issue. Special arrangements are provided for music broadcasting in the dining cars, employing constant-level magnetic wire-type sound reproduction. Either "popular" or semi-classical music can be made available in the other cars, as can regular radio broadcasts. These programs can be interrupted to announce stations or to call attention to points of interest.

FUEL SURVEY: The Interstate Commerce Commission's statisticians have been looking into the fuel situation as it is likely to affect transportation in the immediate future. Their conclusions are reported in an article in our news columns this week. The very great increase in the use of oil fuel by the railroads comes at a time when the country's productive capacity has been matched by its domestic consumption. Either this country must depend more and more on foreign sources to meet its petroleum requirements, says their report, or greater production must be achieved, possibly combined with more efficient use. Price fluctuations also are considered, and it is pointed out that fuel oils can be synthesized from coal if the market price increases to a point where these processes become commercially practicable.

CLIMBING DIESELS: The cog road up Pikes Peak is powered now by General Electric Diesels, as one of our illustrated articles reports. Among the unusual characteristics of the operation are the metal roller contacts between locomotive and car, the practice of operating the observation car ahead of the locomotive, and the tilted-base design of the Diesel engines. Engines with a normal rating of 275 hp. deliver only 190 hp. at the mountain top elevation.

FREEDOM TRAIN: The itinerary of the Freedom Train, so far as it has been definitely established, is given in the article on page 47. In cities where the train already has been shown thousands of people have flocked to railroad stations and grounds to see it. The sponsors of this nationwide exhibition tour of precious historic documents and the railroads and manufacturers providing the equipment have taken every precaution to protect them.

AIR LINE COMPETITION: A comprehensive analysis of the economic and political conditions under which the commercial air lines compete with the railroads has been produced by a subcommittee of the Railroad Committee for the Study of Transportation, which is winding up a five-year research program under the general chairmanship of Judge Fletcher. The committee's findings are the subject of the

article on page 53. No other utility or industry ever has been so luxuriously cared for at the taxpayers' expense, it points out. The public in general does not appreciate the magnitude of these subsidies, it appears, but the air lines do, and so do some of the people in Washington, and the report turns up some evidence that opinion is gradually developing that the air lines no longer are infants, that they ought to become actually self-supporting. There is a lack of evidence, however, that this is likely to happen soon.

FIVE FACTS FOR SHIPPERS: Our leading editorial catalogs five fundamental facts about the railroads' economic position, relative to all industry, that industrial traffic men of vision will want the responsible policy-making executives in their organizations to be thoroughly acquainted with. These are, in brief: (1) adequate railroad service depends on a constant influx of new capital to support the physical improvements supporting that service; (2) poor earnings during the depression of the Thirties discouraged that inflow of capital; (3) earnings in the Twenties were generally sufficient to attract capital, and railroad capacity was adequate to handle the peak traffic of that decade without strain; (4) restoration of the rate and regulatory policies that prevailed in the Twenties should assure the future adequacy of railroad facilities; and (5) railroad rates this summer were 7 per cent more per ton-mile than in 1939, though commodity prices were double, and industrial prices in general were substantially higher. In the light of these facts, far-seeing industrial leaders should demand that railroad rates be increased to a profitable level.

TRAVEL BOOSTER: Facts and figures set forth in the article on page 51 constitute remarkable evidence of the potential demand for railroad passenger service where schedules and equipment are sufficiently attractive. The Illinois Central's "City of New Orleans," in 58-m.p.h. service daily between New Orleans and Chicago, grossed \$2.42 per train-mile the first four days it was in service. In August, the fourth full month of operation, it grossed \$8.93 per train-mile. And the railroad reports that the improved service the new train affords is definitely bringing in new business without adversely affecting other trains.

IN THE BACK OF THE BOOK: The merger of Lima Locomotive Works and the General Machinery Corporation has been effected. . . . The A. A. R. member road meeting is set for November 21, in Chicago. . . . The "Train of Tomorrow" has been visited by almost a million persons. . . . Per diem charges went to \$2 October 1, while the federal court was considering the plea of many railroads that an injunction be issued to stay the application of this I. C. C. order. . . . Senator Reed's probe of I. C. C. treatment of railroads in reorganization has been held up, awaiting a decision on the carriers' application for authority to effect an emergency freight-rate increase.

TIP TO TRUCKERS: For a long time the freight forwarders have been able to work out special joint rate and division arrangements with truckers that have been challenged as discriminatory against other shippers who must pay published tariff rates for assembling and distribution service. This view of the joint rates and divisions is held by the Interstate Commerce Commission examiners whose proposed report on this matter is the subject of a news story in this issue. Elimination of the special arrangements is recommended by the examiners, who consider them clearly unlawful. Forwarders must pay the railroads the same rates as other shippers who enjoy the same service, and the report suggests that a similar condition should prevail in trucking operations.

SEVEN FAT YEARS: Just because this country's grain harvest has been phenomenally large in the past seven years it can't be expected to continue so forever, warns the Burlington's Vice-President Capron, whose comments on this subject are summarized in the news pages. If the railroads were able to provide enough cars to move the grain promptly now, they might very well find themselves in a very few years with a big and unprofitable surplus of cars standing idle on their tracks. And if they did find themselves in that position they would be roundly criticized for improvident over-expansion of their capacity.

B. & B. MEETING: Eight technical committee reports and two addresses made up the main part of the program of the recent Chicago meeting of the railroads' Bridge & Building men. Abstracts appear herein. The psychological power of color, the basis on which industrial applications of color are being planned and used with considerable success, was discussed by George D. Gaw, while E. J. Ruble of the A. A. R. research staff reviewed progress in tests on determination of impact and stresses in steel, masonry and timber bridges. Reports dealt with such subjects as water station modernization, enginehouse floors and training of supervisors.

COAL STATION DESIGN: There is more to planning a railroad coaling station than picking a convenient spot close to the enginehouse, and the report of a committee of the Railway Fuel and Traveling Engineers' Association (the basis of the article on page 49) outlines some of the other factors that must be considered. Location must be determined on the basis of operating practices, and design, to be most effective, must be guided by the experience and judgment of the men who will be in immediate charge of the plant's operations, rather than by purely general engineering and architectural rules. The economy with which the facility can be used and its life expectancy will depend on the design and materials employed, arrangements for unloading, treatment of frozen coal, dependability of supply, and conditions of disbursement.

"STANDARD" DIAGONAL PANEL ROOF



This new design is not something old modified, but a new principle and unique method of forming light metal sheets to get the ultimate strength possible.

Continual research, development and testing by an organization with 50 years of freight car roof experience has created this new roof.

SERVICEABILITY	STANDARD RAILWAY EQUIPMENT CO.	RELIABILITY
310 South Michigan Avenue Chicago 4, Ill.	247 Park Avenue New York 17, N. Y.	
PLANTS — Hammond, Ind.	New Kensington, Pa.	
DURABILITY		

RAILWAY AGE

Do American Shippers Really Want Efficient Transportation?

Actions speak louder than words—and many shippers, despite their complaints about the inadequacy of present railroad facilities and service, are, nevertheless, casting *effective votes* against any increase or improvement in the service with which they find fault.

As long as the railroads remain in private ownership, the extent of additions and improvements to their property is dependent upon the actual and prospective profitability of such additional investments. Good money hesitates to follow after bad. When existing investments in the railroads earn a meager and uncertain return—largely because of rate policies and subsidies to rival agencies which are advocated by substantial numbers of shippers—enthusiasm of investors for further ventures of their savings in the railroads is bound to continue on the wane.

Many shippers, and perhaps even a larger proportion of the traveling public, seem to believe that the railroads have some rather mysterious duty to the “public service” which obliges them to accommodate promptly any and all traffic which may be offered, whether it is profitable or not and whether those demanding immediate attention to their demands are regular customers or are merely using the railroads as a “stand-by” convenience, utilized only when there is a shortage of trucks or planes or the rivers are too dry to float the barges.

A Heritage from the Monopoly Era

Even some railroad men seem to entertain this feeling of obligation—which is an anachronism, properly belonging to an earlier day when the railroads really had a monopoly of transportation. When everybody used the railroads and there was no alternative transportation—and when regulation was less restrictive than it is today, so that unremunerative services could be offset by relatively higher charges on other traffic (without the danger that such higher rates would divert the remunera-

tive traffic to competitors)—then, perhaps, it was just and reasonable to expect the railroads to serve well every part of the country and all classes of traffic, including some branches and schedules which were unprofitable. In those days the railroads could afford, as an accommodation, to handle some traffic which did not pay, because rates high enough on the average could be made to “stick” to keep the industry as a whole sufficiently profitable to attract a constant inflow of investment dollars.

The Statesmanlike View

Conditions in transportation have undergone a revolution, but the habits of thought of most people about the industry have not undergone a parallel change. Railroad stocks have not sold at an average price as high as 100 since 1931, which is another way of saying that, for 16 years, there has been, generally speaking, no enthusiasm on the part of investors for entrusting more of their money to the railroads to provide desirable additions and betterments. For an entire decade 1930-40 there was no net increase whatever in the investment in railroad property, but an actual shrinkage. The present inability of the railroads to meet promptly all demands for service is a direct result of the failure of investment in railroad plant to increase during the 1930's as it did in the 1920's. That failure of railroad plant to grow in the 1930's was no fault of the railroads—but had its origin in lack of earnings and of investors' confidence. Now we have the spectacle of shippers and others insisting upon a level of rates which would subject the railroads, with record-breaking traffic, to the same regime of poverty and stagnation of plant improvement from which they suffered in the 1930's.

When the term “shippers” is used, most people think of industrial traffic managers—but, of course, they are the agents of the real shippers, i.e., the companies which

employ them. It is quite likely, when some industrial traffic managers insist on rates too low to support a thriving and progressive railroad industry, that they are serving their own personal interests rather than reflecting the considered opinion of their superiors. It would, however, be a serious error and injustice to impute such a narrow attitude to the industrial traffic fraternity as a whole. Some of their number take a statesmanlike view of the problem and have no more zest for impoverishing the railroads than the railroads have for enduring that condition. Perhaps more traffic managers would adopt this enlightened attitude if their top managements were better informed on transportation issues and were, consequently, less insistent upon immediate "savings" in transportation charges. Where a subordinate officer of an industrial corporation commits his employer to a stand on an issue as fundamental as that of restoring the railroads to an earnings position which will make available to them an adequate inflow of new investment capital, not all the credit or blame, as the case may be, belongs to the traffic manager himself. It must be shared by his superiors who are responsible for the quality of traffic leadership the company employs.

Nothing could so strengthen the hand of real statesmanship in the industrial traffic fraternity as an educational campaign among top management of industry which would enable them to recognize competent leadership among their traffic managers, when they are fortunate enough to have it. Traffic managers whose con-

The writer has just completed 36 years' service as editor of *Railway Age*, and will soon have been connected with this publication for 41 years. He has been for 16 years head of the Simmons-Boardman Publishing Corporation which publishes *Railway Age* and other railway and business publications. The time has come when he must transfer more work and responsibility to younger men. Therefore, with this issue James G. Lyne, assistant to editor and assistant to chairman, becomes co-editor of *Railway Age*. My colleague, Roy V. Wright, who has been managing editor of *Railway Age* since 1912, will continue in that capacity.

S. O. D.

sciences tell them that they are protecting the long-run interest of their business in healthy transportation conditions—as opposed to the immediate personal notoriety attainable by championship of "cheap" transportation for the immediate future, should be happy to have such information supplied to their superiors.

The facts are not so complex that business

leaders would fail to understand them, or to appreciate their importance, if clearly and persistently presented. These facts may be summarized as follows:

1. Under private enterprise—which is practically the unanimous choice of all Americans of the means by which they want their transportation provided—the adequacy of facilities and service is dependent upon a constant inflow of new capital which, in turn, is dependent upon reasonably dependable profitability of such investment, as compared to other opportunities.

2. The supply of capital flowing into the railroads was demonstrably inadequate throughout the 1930's for the needs of commerce and the national defense—as events since 1940 have demonstrated—and the reason for the restricted inflow of new capital was the poor earnings during the decade of the depression.

3. While the supply of new capital flowing into the railroads in the 1930's was insufficient, that induced by earnings at the average level prevailing in the 1920's was reasonably adequate—as is shown by the fact that railroad facilities at no time during the peak traffic of the latter half of the 1920's fell short of demand.

4. It follows from the foregoing that restoration of

Fundamentals Affecting the Railroads' Future

We have indeed come a long way under our political and economic system. No other country on this earth has as much of almost everything—wealth, health, educational opportunities for young and old, culture and all the material things that go to make up our unexcelled standards of living.

In contrast, foreign philosophies, packaged a bit differently each time, have failed all through history. In essence they are all the same. They all hold forth the alluring but empty promise of "something for nothing"—the abundant life, laid without effort, in the laps of all. Succeeding generations, forgetful of history, seemingly must learn all over again through bitter experience that they will not work.

If I am not badly mistaken, we are agreed that if we are to preserve what we have, if we are to increase the abundance of our own lives, willingness to go up against hard work must again be recognized as something to a man's credit instead of an indication of stupidity. Ambition and initiative and industriousness must again be the things that are relied upon for promotion and advancement. Integrity must again be recognized as a virtue instead of a weakness.

What I have just said is inseparable from any consideration of the economic outlook for our railroads during the next twelve months. For it is against the battered and weakened ramparts of the railroad industry that the forces of ignorance, prejudice, maliciousness, demagoguery, sel-

fishness and foreign ideologies threaten to breach our system of free private enterprise. . . . I am gravely concerned at what lies ahead. I sometimes feel that we already have drifted so far away from the fundamentals upon which our liberty and freedom and our free enterprise system were founded, that perhaps we have reached the point where we do not choose to do otherwise than to continue to drift. That would not be much unlike the fate of France and England. . . .

I am expressing my individual view when I say that the railroad economic outlook for the ensuing year is a challenging one. We have many difficult problems ahead and we need the help of all good citizens to overcome them. The facts are, in my judgment, that the railroad industry by means of government regulation is being starved out of the picture in so far as private ownership and operation are concerned, and if this policy is continued it is only a matter of time until we are going to hear much more about nationalization. Should that take place, we may reasonably expect to see a general movement to nationalize all basic industry in this country. We hope and pray that this will not happen here, but it can—and if it does we will no longer be living in a land of the free, and it is not unlikely that the homes of the brave will be state-owned!

—C. E. Johnston, chairman of the Western Association of Railway Executives, in an address to the Railway Tie Association

There exist today two widely divergent concepts of human organization—one that has or aspires to a Bill of Rights, and one that neither has nor aspires to it. Expressing it another way, there is one concept where governments are established to serve the individual, and the other where the individual must serve the state. The first is the concept that the people are to be trusted and on them, after free and open discussion, must rest the ultimate decisions. Governments must respond to their wishes. The other concept fundamentally distrusts the people as an ignorant mass. It is the few who have seized power who know best; the people through force and controlled education must conform. Information is rationed to support the infallibility of those in power, however adverse to the real interests of the people their decisions may be. Let there be no misunderstanding of the fundamental nature of these two basic concepts of human organization. We as a people have learned that wherever there is free decision by the people in any country we have friends. We have learned that wherever there is dictatorship, whether it be under the guise of communism or fascism, there is a threat to the security and progress of free men.

The seizure of power can come by the use of military force but more insidiously through the use of a new weapon—that of infiltration by seductive propaganda and false promises. We must recognize that this has had a measure of success in all countries, including our own. Citizens of every nation, some of them well-intentioned people, have become, consciously or unwittingly, the agents of a foreign power against their own country.

—Secretary of Commerce W. Averell Harriman

policies as to rates, regulation, and of dealing with government-owned transportation plant which prevailed during the 1920's should assure the future adequacy of railroad facilities under private ownership.

5. Railroad freight rates in June, 1947, averaged only 7 per cent more per ton-mile than in the year 1939. Wholesale commodity prices in June, 1947, averaged 92 per cent above those of the year 1939. If the railroads were enjoying any such increase in the price of their service, their gross revenues would be increased by almost \$5 billion. Since 1939, average prices of agricultural products have risen 172 per cent; textiles 99 per cent; fuel and lighting materials 42 per cent; metals and metal products 51 per cent; and manufactured products 77 per cent.

These figures do not indicate impoverishment among the railroads' customers, making them unable to pay a price for transportation service high enough to permit the railroads to thrive as private enterprise. Neither do they indicate that shippers in this country are in such straits that they need to shift part of their freight bills to the taxpayers, through the device of toll-free waterways and superhighways. Unless the leaders of business are less intelligent than they have hitherto given reason to believe, the clear and insistent presentation of such facts as the foregoing ought to go a long way toward providing the railroads with a political and regulatory environment in which they can prosper. Such an outcome is just as necessary to the long-run welfare of general business as it is to the railroads themselves.

The Power of Color

There was a time when most railroads had standard color schemes for their structures and equipment, and many still adhere to this practice. In recent years, however, recognizing the shortcomings of this policy, some railroads have permitted more flexibility in the choice of colors, with the objective sought usually being described in such vague terms as "pleasing" or "harmonious." Now, it develops that scientists working with color have built up an entirely new body of knowledge regarding its effect on people, which promises to bring further, and even more fundamental, changes in the policy of the railroads regarding the choice of color schemes.

Briefly, the new science teaches that all people are deeply affected emotionally and physically by the colors surrounding them. Probably there is no better way to illustrate the power of this influence than to point to the claim by color researchers that, subjected to the proper color combination, a group of persons can be placed in a state of intoxication just as effectively as if they had each imbibed a generous potion of alcohol. Obviously, this objective does not interest the railroads, but they do want their customers to be pleased and happy, and their employees to be safe, dependable, efficient workers. Properly used, color can be a powerful ally in helping the railroads to achieve these ends.

A passenger waiting in a station or riding in a train may feel at peace with himself and the world without knowing that the colors in his surroundings have helped materially to induce this effect, whereas the same person, surrounded by a poorly-designed color scheme, could easily be dejected or otherwise ill at ease. Similarly, the state of mind of a mechanic at a machine will not only be determined in a large measure by the colors of the ceiling, walls and floors of the room in which he works, but his record as a safe worker will depend on whether scientific use of color has been made in painting the machine he is operating. Again, the color scheme and lighting in his office may be the most important single factor in determining whether a ticket agent greets patrons with a smile or a scowl.

These hypothetical examples of the effect of color on railroad patrons and employees could be multiplied many times. To some, perhaps, they may seem far-fetched, but actually they are based on the results of scientific observations that have been made and reported by researchers in color. Among these is George D. Gaw, director, Color Research Institute of America, who expounded some of his ideas and findings in an address before the recent convention of the American Railway Bridge and Building Association. An abstracted version of Mr. Gaw's remarks is presented in this issue as part of an article reporting the activities at the convention.

No longer will it suffice, when designing color schemes for railroad structures and equipment, to seek merely for a "pleasing" or "harmonious" effect. Scientific research has demonstrated the power of color as a force for helping the railroads to attract and hold business, to better their safety records and to elevate their employees to a higher plane of efficiency. These objectives can only be realized by first deciding what effect is desired in each location, and then, using the scientific knowledge now available, designing the color scheme accordingly.



Technical committee reports and addresses suggested solutions to many problems facing bridge and building men

Bridge and Building Men Seek Answers to Many Problems at Chicago

Annual meeting, held concurrently with Roadmasters' convention, considers a broad range of subjects in the form of committee reports and addresses — Attendance and interest at high level

MEETING under the auspices of the American Railway Bridge and Building Association, the men who supervise the repair and maintenance of the railways' bridges and buildings, as well as their water service facilities, held one of the most successful gatherings in their history at Chicago on September 16-18. This evaluation of the meeting is based in part on the fact that the many technical committee reports and addresses presented during the three-day session comprised a broad-scale discussion of the particular problems confronting bridge and building men, and those facing the railroad industry, and included numerous constructive suggestions for their solution.

Unquestionably contributing in considerable measure to the success of the meeting was the fact that, continuing a precedent established last year, it was held concurrently under the same roof (the Stevens Hotel) with the annual convention of the Roadmasters' and Maintenance of Way Association, the activities of which were reported in last week's issue. Experience with this arrangement during the two years it has prevailed indicates that it has many advantages, not the least of which is that members of one group have the opportunity of participating in any sessions

of the other that may be of particular interest to them. While the meetings of the two groups were for the most part kept entirely separate they were brought together on two occasions, including the opening session, to participate in programs of mutual interest.

Attendance Was High

A concrete measure of the success of the meetings is afforded by the fact that during the three-day period they were in session a total of 765 members and guests registered their attendance. This figure is considerably larger than the registration of 693 last year.

An interesting sidelight on the meetings, and a further indication of the widespread interest attracted by them, is that nine technical committees of the American Railway Engineering Association scheduled meetings to be held in Chicago during the time the conventions were in session, thus enabling the members of these committees to share in programs of interest to them.

Not to be overlooked in any account of the activities of the week is the large exhibit of manufacturers' products that was presented in the exhibit hall of the hotel jointly by the Track Supply Association and the Bridge and Building

Supply Men's Association. With a total of 96 companies* participating, this exhibit was even larger than the record display staged last year by 90 firms.

The two conventions were convened on Tuesday morning, September 16, in a joint session presided over by F. G. Campbell, chief engineer of the Elgin, Joliet & Eastern and president of the Bridge and Building Association, and by E. J. Brown, engineer of track of the Burlington Lines and president of the Roadmasters' group. Mr. Brown and Mr. Campbell also functioned jointly in directing the activities of another joint session held on Wednesday afternoon. All separate sessions of the Bridge and Building group were presided over by Mr. Campbell, assisted by J. S. Hancock, bridge engineer of the Detroit, Toledo & Ironton (first vice-president), and E. H. Barnhart, division engineer of the Baltimore & Ohio (second vice-president).

As reported in last week's issue the opening session was devoted in part to words of greeting from the American Railway Engineering Association by A. Chinn, president of the Terminal Railroad Association of St. Louis and presi-

* A complete list of the companies exhibiting, together with the names of their representatives present and the products displayed, was published in the news pages of the issue of September 27.

dent of the A.R.E.A.; from the Track Supply Association by H. M. McFarlane, president of that association; from the Bridge and Building Supply Men's Association by W. L. McDaniel, president of that group; and from Lewis Thomas, secretary of the Track Supply Association and director of exhibits for both supply groups.

The final feature on the program of the joint opening session was an address by J. H. Aydelott, vice-president, Operations and Maintenance department, Association of American Railroads. Subsequently—at the afternoon session on Wednesday—the two groups were addressed jointly by Ralph Budd, president of the Burlington Lines, who discussed Problems of Railway Management and How Our Groups Can Help. Abstracts of the addresses by Mr. Aydelott and Mr. Budd were included in the story of the Roadmasters' convention in last week's issue. Also on the program of the joint session on Wednesday afternoon were the two motion pictures noted in the story of the Roadmasters' convention.

President's Comments

Opening the separate session of the Bridge and Building Association, President Campbell reviewed its history, pointing out that it is nearly half as old as the railroad industry itself. Noting that the members, in discharging their responsibilities, are having to cope with shortages of materials and labor at a time when costs of both are going up, he said that it is the responsibility and duty of the members to seek more efficient operation, based largely on the further development of labor-saving machines. Reporting on the year's activities of the association, President Campbell said that, in at least one respect—the enrollment of new members—it was one of the best years ever experienced by the organization. An active campaign, he said, resulted in signing up 97 new active members and 13 new associate members. As a result, the association now has a total of 568 dues-paying members.

The separate sessions of the Bridge and Building Association were given over in large part to the presentation and consideration of eight technical committee reports and two addresses, which together dealt with a broad cross section of the problems facing the men in this group. The committee reports covered the following subjects: Economies to Be Derived Through the Modernization of Obsolete Water Stations; Construction and Maintenance of Shops and Enginehouse Floors and Runways; Development and Training of Supervisory Personnel in Bridge and Building and Water Service Forces; Glued, Laminated Members in Bridges; Unfilled

Needs in Power Machines and Power Tools for Bridge and Building Work; Safety Measures to Protect Employees Within Buildings Against Fire and Accidents; Utilization of New Types of Material in Buildings; and Inspection of Substructures and Underwater Foundations.

Two Addresses

Of the two addresses that were presented one was delivered at the afternoon session on Tuesday by E. J. Ruble, structural engineer, research staff, Association of American Railroads, on Recent Tests on Determination of Impact and Stresses in Steel, Masonry and Timber Bridges. The other address, entitled The Power of Color, was presented at the morning session on Wednesday by George D. Gaw, director of the Color Research Institute of America. Abstracts of both addresses and all the committee reports appear below.

Adding interest to the meeting were a number of special events. One of these was the presentation of an honorary membership certificate to Charles H. Buford, president of the Chicago, Milwaukee, St. Paul & Pacific; he was elected last year. Also, one new honorary member, was elected this year, namely, Clarence R. Knowles, superintendent of water service (retired) of the Illinois Central, who has been active in the work of the association for many years, having served as president in 1921-22.

Other special events included the annual banquet on Wednesday night, which was a joint affair with the Roadmasters and was attended by a total of 984 persons; and an inspection trip on Thursday afternoon, also joint with the Roadmasters, to the Carnegie-Illinois Steel plant of the United States Steel Corporation at Gary, Ind.

New Officers

In the election of officers to serve during the coming year, Mr. Hancock was advanced from first vice-president to president; Mr. Barnhart was advanced from second vice-president to first vice-president; W. F. Martens, general foreman, bridges, buildings and water service of the Atchison, Topeka & Santa Fe, San Bernardino, Cal., was advanced from third vice-president to second vice-president; W. A. Huckstep, general building supervisor of the Missouri Pacific, St. Louis, Mo., was promoted from fourth vice-president to third vice-president; Guy E. Martin, superintendent water service of the Illinois Central, Chicago, was elected fourth vice-president; and Mr. Knowles and Elise LeChance were re-elected treasurer and secretary, respectively. The new directors elected were: Lee

Mayfield, resident engineer of the Missouri Pacific, Houston, Tex.; Franz M. Misch, general bridge and building supervisor of the Southern Pacific, San Francisco, Cal.; and W. D. Gibson, assistant engineer of the Burlington Lines, Chicago.

As a basis for the committee work for the ensuing year, eight subjects were chosen for investigation as follows: Protection to Bridges Over Navigable Streams; Types of Bridges for Replacing Timber Trestles; Enlarging and Relining Tunnels for Present-Day Traffic; Recent Developments in Storage and Servicing Facilities for Diesel and Oil-Burning Locomotives; Sanitary Facilities and Appurtenances for Railway Buildings; Eliminating Waste of Water; Good Housekeeping to Promote Safety and Fire Protection; and Housing Bridge and Building Employees.

Because of widespread satisfaction with the plan of holding this convention concurrently with that of the Roadmasters' Association, the decision has been made to continue the arrangement next year. The tentative date for the 1948 meetings is September 21-23.

Power of Color

Some surprising attributes of color, including its psychological effects on human beings, were revealed in the address by Mr. Gaw on the Power of Color. The psychological power of color, said he, is predicated on its exact hue. In other words the effect from a cold red (red and blue) is very different from that of a warm red (red and yellow), while a green-blue will not affect us the same as will a purple-blue.

Red is the most stimulating of colors, said Mr. Gaw, while yellow produces the sensation of sunlight, and blue is the coldest of the colors. To indicate what he meant by these properties Mr. Gaw described case histories demonstrating the power of color over the physical and emotional well-being of persons.

Yellow has the best visibility of all colors and plays an important part in accident prevention, he said. Explaining that yellow and black comprise the most effective combination for visibility, Mr. Gaw said that this combination is best where quick attention is essential and where reading at a distance is a factor. However it should never be employed where legibility is needed because it is cutting to the eyes and will not hold sustained attention.

Color planning for modern industry embraces, in addition to the psychological factors, the symbolic values and the visibility aspects of colors. In other words we associate red with danger, green with nature and safety, etc., and these associations have become part of the subconscious mind. Confusing visibility with legibility is one of the com-

mon errors made in the use of color today, he said.

Explaining the applications of color in industry, Mr. Gaw said that there are some general color principles that can be applied to all working places. Except in special cases plant ceilings are painted white because this is the color that reflects maximum light. White is not used on walls because workers should be surrounded by colors that should make them feel at ease and that do not cause eye fatigue. The color on the walls must be in keeping with those on the machines and should be in harmony with the function of the establishment.

In a plant that has a scientifically designed color scheme, said Mr. Gaw, everything in the place—walls, ceilings and machines—is treated with colors that aid production. Such a design results in more accurate and faster work, happier and less tired employees, a lower accident rate, and better labor relations.

Impact on Bridges

The address by Mr. Ruble on Recent Tests on Determination of Impact and Stresses in Steel, Masonry and Timber Bridges was a compendium of the research work that has been done in recent years, some of which is still in progress, to determine impact stresses in railroad bridges of all types. Mr. Ruble first discussed the nature of the total impact effect, pointing out that it results from several individual effects, including the roll effect, the speed effect, the track effect and the hammer-blow effect. The cause and meaning of each were discussed.

Pointing out that "the effect of a locomotive crossing a railroad bridge at various speeds has been of great interest to the bridge designer for many years," Mr. Ruble went on to review the various tests to determine the nature of this effect beginning in 1849 and culminating in 1935 with the development of the A.R.E.A. impact formula, which is still in use. The development of this formula, said Mr. Ruble, brought forth the need for more research on the subject, and a program of tests was undertaken by a special committee, which now exists as the standing Committee on Impact and Bridge Stresses of the A.R.E.A.

Explaining that the electro-magnetic type of measuring equipment, with oscillograph recordings, was selected as the type of strain gage that would be most suitable for the work, Mr. Ruble traced its development and explained how it is used. Next he described the tests that were conducted on seven short-span bridges from 1941 to 1943, noting that the general procedure was to secure records under both Diesel and steam locomotives at various speeds with a battered rail joint in one rail close to

the center of the bridge. He then reviewed the results of these tests, which showed, among other things, that the total impact effect is somewhat less than that allowed by the present A.R.E.A. specification.

Mr. Ruble then turned to a discussion of tests that were made in 1946 on five girder spans varying from 40 ft. to 70 ft. in length, pointing out that these tests are being continued. He then described a number of tests that have been carried out at the request of individual railroads on some of the older truss spans in service today to determine if they are capable of carrying present-day loads. After discussing the results of these tests, he described some tests that were made in 1941 on a truss span 102 ft. 6 in. long, in which vibrations were induced by means of a mechanical oscillator.

Other subjects discussed in this address included a test to determine the strains in a large concrete pier; plans for making tests on several concrete pile trestles; the results of tests to determine the loads on individual ties in open-deck girder spans; the effect of fatigue on the floor-beam hangers of through-truss spans; the results of tests to determine the fatigue strength of welded structural joints; and a test that is being made to determine the concrete bearing pressures under a railroad bridge rocker slab.

Floors and Runways

The committee reporting on the construction and maintenance of shop and enginehouse floors and runways, which was headed as chairman by R. W. Gilmore, general bridge inspector of the Baltimore & Ohio, Cincinnati, Ohio, pointed out that this is an important subject today because of the prevailing high cost of construction and the further fact that in recent years the wear and tear on shop and enginehouse floors has become more severe than ever.

Following a discussion of brick floors and methods of constructing them, the committee gave brief attention to wood block floors, pointing out that such floors should never be used in round-houses, since an excessive amount of water on the blocks causes them to swell.

Asserting that concrete floors are the most satisfactory if properly constructed, the committee devoted the remainder of its report to a discussion of them. Here it quoted at length from a book published by the Portland Cement Association, entitled Concrete Floor Finishes. Points taken up in this discussion included preparation of the subgrade, the recommended thickness of the floor slab, the provisions that should be made for expansion, the design of the concrete mix, and the tamping, vibrating and screening of the concrete.

Considerable attention was given to the procedures to be followed in preparing and placing a topping course on heavy-duty floors. Other subjects covered by this report included modern practice in the construction of enginehouse pits and methods of patching concrete floors.

In a brief discussion of runways and platforms not under roofs the committee stated that bituminous material is satisfactory for such locations under certain conditions. It also "believes concrete is satisfactory for runways, just as it is for floors, and that in runway construction the latest practices recommended for highway pavement should be followed."

Summarizing its findings the committee recommends "that floors for shops and enginehouses, and runways, should be constructed of concrete where possible. In constructing these floors, particular care must be taken in the selection of the aggregates, limiting the water, proper tamping or compacting, and adequate curing. If all these details are taken care of, it is felt that one of the most satisfactory floors obtainable can be constructed."

Modernizing Water Stations

A picture of rapidly-changing conditions affecting the water-supply facilities of the railroads was presented in the report of the Committee on Economies to Be Derived Through the Modernization of Obsolete Water Stations, of which Howard E. Graham, assistant superintendent of water service of the Illinois Central, Chicago, was chairman. These changes, according to the committee, include larger locomotives, higher boiler pressures, and larger locomotive tenders and auxiliary tenders. Furthermore, the situation is being complicated by rapid increases in the use of Diesel locomotives.

The first phase of the subject discussed in the report dealt with sources of supply. This section gave consideration to the improvement of intakes and suction lines, the problems presented by the pollution of streams from which water is obtained, the advantages of well supplies as compared with surface supplies under certain conditions, and the attention that should be given reservoirs to keep them in proper condition.

Turning its attention to power units, the committee discussed the advantages to be realized by replacing out-moded steam and oil-engine-driven plants with those of the automatic electric type. With reference to water treatment the committee said that the earliest plants, known as the intermittent type, eventually were superseded by those of the continuous type and that the latter are

now being replaced by the suspended sludge type. When intermittent or continuous plants are due for reconditioning or rebuilding, the suspended-sludge type plant should be considered as modern procedure, according to the committee. It then traced the development of, and improvements in, the internal, or way-side, method of treatment.

Next, the committee undertook a discussion of the advantages of cleaning pipe lines. Pointing out that pipe lines are now being taxed to their capacity, that additional material for larger mains is difficult to secure and that, by cleaning existing mains, their original capacity can be restored, the committee said that the cost of cleaning mains four inches and upward in diameter with modern pipe cleaning methods is much less than installing additional mains or replacing encrusted lines with new pipe. The committee also gave consideration to the various methods being used to clean encrusted well screens.

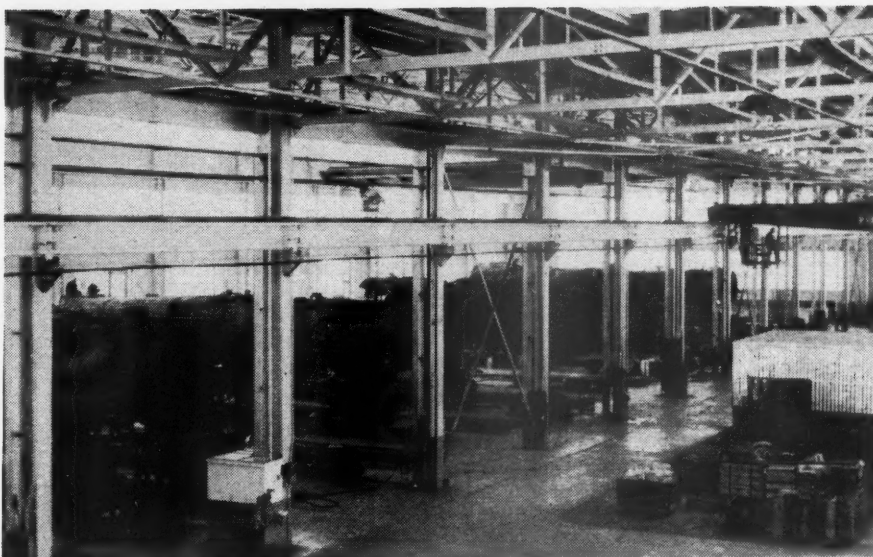
The profound effect that the widespread use of Diesel-electric locomotives is having on the character of the water stations required was the final phase of the subject discussed by the committee.

Inspecting Bridge Foundations

Recognizing that severe floods may occur only at intervals greater than a lifetime, the Committee on Inspection of Substructures and Underwater Foundations, of which Leo D. Garis, general bridge inspector of the Chicago & North Western, was chairman, stated: "It is the aim of this report to relate the experiences of men who have been responsible for the safety of substructures during floods, so that those with less experience may profit thereby."

Experienced men realize, said the committee, that one of the best ways of meeting flood emergencies is for all employees to be on the alert to get all information available concerning storms. The track foreman, according to the committee, is the key man in obtaining this information. Other officers, however, should have contacts established beyond the railroads—at state highway departments, government locks, and weather bureau offices—where channels are kept open so that accurate and timely information can be obtained when needed.

When impending flood conditions are indicated, the committee warned against issuing orders to enginemen, "Look out for high water conditions!" It feels that "these employees do not have equipment or tools to ascertain such conditions, and generally their experience and training are such that they do not have the knowledge to evaluate accurately the information that they might obtain."



Shop and enginehouse floors demand the most careful consideration in construction and maintenance to meet present day conditions

Much more to be desired, in the opinion of the committee, are the instructions issued by one road to the effect that, in case of doubt, trains should be stopped. Actual conditions should then be determined so that a decision can be made as to whether or not the train can proceed safely.

This decision can be made more quickly, the committee believes, if the results of regular inspections have been adequately recorded so that the effect of the current flood can be ascertained. Details of how these regular inspections are made and the interpretations inspectors should place on conditions noted at the time were quoted directly from the instructions one railroad issues to its bridge men.

Any system of regular inspection, in the opinion of the committee, must be supplemented by special, detailed inspections following all floods or high-water periods where damage to foundations may have occurred. Comparison of the findings at such times with previous conditions, it said, gives the only basis on which necessary repairs can be made.

Protection in Buildings

Assigned a subject which covered practically an unlimited field, the Committee on Safety Measures to Protect Employees Within Buildings Against Fire and Accident, headed by S. L. Chapin, safety supervisor of the Southern Pacific, confined its report to a general, yet comprehensive, analysis of the causes and prevention of "fire" and "accident" injuries in buildings.

On the premise that "the fire-safety of building occupants probably depends more on the ability to evacuate the building in case of fire than on any

other factor," the committee discussed at some length the specific minimum exit requirements for existing structures, classified as to hazard of occupancy. It stated that "open outside stairways or fire escapes should be regarded as nothing more than a secondary means of escape and, generally speaking, should not be used on buildings over four stories high." Much to be preferred, said the committee, are outside stairways within "smoke proof" towers constructed of fire-resistant materials and separated from the building by a fire wall, with the entrance from each floor protected by a fire door.

The committee also suggested that some type of fire warning system be provided in any building containing 40 or more persons. Its report stressed the fact that, "regardless of how adequate the means of escape and fire protection . . . the evacuation of the building should be carefully planned, and as much information as necessary conveyed to the occupants."

In that portion of the report dealing with protection against accidents, the committee pointed again to stairways as a focal point of attention, prescribing details of width, tread and risers under varying conditions. It was also recognized that worn or slippery floors could be a prolific source of accidents. Possible remedies were suggested, such as the resurfacing of wood floors with asphaltic emulsions, gluing anti-slip material to the floor, spreading blotting material to minimize the effect of oily or greasy surfaces, or constructing concrete floors with expanded metal reinforcing left partially exposed. Where built-in safety is lacking, the committee stated that a surprising amount could be provided by the use of color.

The committee also touched briefly on the common hazards in the misuse of

electrical equipment. The report concluded with the admonition that "the largest part of accident prevention depends on eliminating so-called unsafe practices, and our best weapon in this respect is an educational program designed to teach safe working habits, to make our employees safety minded, and to build up morale."

How to Train B. & B. Supervisors

The presence of an urgent need for the railroads to take the necessary steps to attract engineering graduates into the railroad field was pictured by the Committee on Development and Training of Supervisory Personnel in Bridge and Building and Water Service Forces, of which F. W. Hutcheson, supervisor or bridges and buildings of the Chesapeake & Ohio, Newport News, Va., was chairman. This committee made an exhaustive investigation of methods used by the railroads to train supervisors for their bridge and building forces, as a

a definite shortage on many railroads of properly trained and qualified men to fill supervisory positions; that, due to conditions brought about by World War II, and also to the establishment of compulsory retirement programs by many railroads, the requirements for replacement of supervisory personnel will be considerably above the normal average for at least the next five years; that training programs are feasible and practical, as is evidenced by the satisfactory results being accomplished on those roads which now have such programs; and that railway managements be urged to take immediate steps toward the inauguration of some definite plan of development and training of supervisory personnel for the bridge and building and water service forces.

Building Materials

Stating that while there are relatively few building materials presently available which can properly be classed as new, the Committee on Utilization of

more extensively on masonry, but must share the field with the oil-base cement-binder type where sizing is possible. The committee also felt that mention should be made of the war-born plastic paint-like product which can be wiped on; the progress being made in the development of rust inhibitors; and the pre-treatment of galvanized steel sheets permitting their being painted without allowing a weathering period.

A variety of cement asbestos materials in the form of corrugated sheets, rigid shingles, lumber, etc., are adaptable, in the committee's opinion, to uses where 100-per cent salvageability, and resistance to sound transmission, fire moisture, chemical fumes or gases are considered important.

Floor coverings are available, according to the committee, in many types, such as cork and asphalt tile, vinyl-resin products, asphalt mixtures, concrete admixtures, and a new type steel floor plate which can be bonded to concrete.

Interior wall finishes which can be obtained, the committee said, include enameled tile, cloth-back wood veneer, cloth-back glass sheet, plastic on plywood, glazed - surface, wood - veneer sheets, and ceiling blocks, both acoustic and non-acoustic.

Pre-fabricated metal buildings, in the opinion of the committee, have the advantages of rapid construction and adaptability to ready removal without loss.

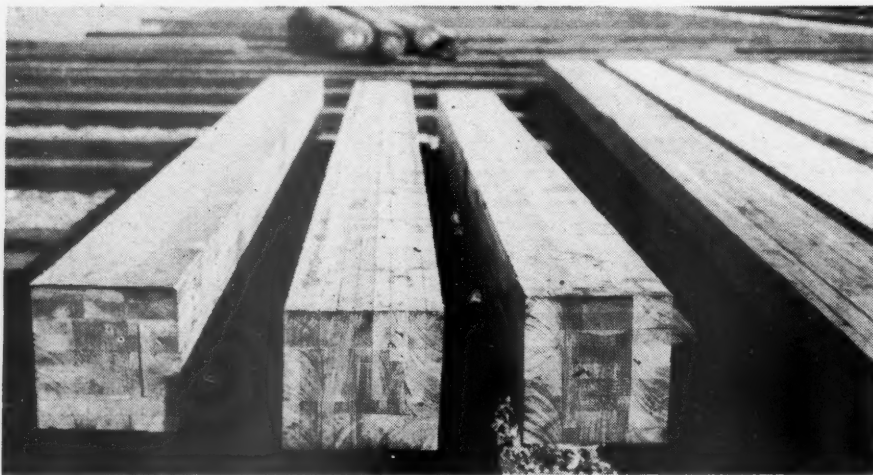
Other pre-fabricated products finding increased use are steel roof decks, asbestos-bonded steel sheets, and gypsum roof units.

Unfilled Needs in Power Machines

The committee reporting on the subject, Unfilled Needs in Power Machines and Power Tools for Bridge and Building Work, summarized its findings by saying "that there is much room for further improvement in power machines and power tools, and need for their wider application in bridge and building work."

This committee, which was headed by R. W. Johnson, assistant engineer of the Chicago, Milwaukee, St. Paul & Pacific, Chicago, pointed out various unfilled needs for power machines and also related how certain machines already in use in the bridge and building field are proving invaluable.

Regarding communications the committee pointed to the need for loudspeaker or electronic systems of communication on large jobs as a means of keeping key men informed of developments. The advantages of off-track pile drivers were discussed, as were also the merits of light hand-operated bridge derricks. The need for a mobile off-track unit equipped to do various tasks, such



Glued, laminated members are being tested in bridges on several railroads and appear to possess essentially the same physical properties as solid timbers

result of which it found that only three American railroads follow a system and a program of employing technical graduates for training supervisory officers.

In one of the plans used, the "student apprentice system," technical men are trained through actual work with the regular forces, in time keeping, inspection, office work, etc. The committee believes that this system has merits and recommended its consideration by those roads employing a considerable force of supervisory personnel. A suggested program for training technical graduates in supervisory work was offered, and suggestions for training foremen or other men without technical backgrounds were also presented.

The committee concluded that there is

New Types of Materials in Buildings, of which B. M. Stephens, architectural engineer of the Texas & New Orleans, was chairman, stated that there were some materials which could be called new types because they have not yet been generally used on railroads. Glass products, such as corrugated glass sheets, glass blocks, structural glass finishes, and heat-absorbing glass, are rapidly coming into general use, said the committee.

Various new paint products, the committee said, are also coming to the fore. Silicone resin paints are ideal, it said, for ovens, smokestacks, exhaust manifolds, radiators, etc., because of their heat-absorbing qualities. Water-base cement-binder paints are being used

as lifting, excavating and dozing, and mowing needs, was mentioned.

Following a discussion of the possibilities of various types of small electric tools, the committee mentioned several innovations in the use of jacks that it considered advantageous. Several improved types of well pullers that have proved satisfactory were then described, after which the committee took up the subject of riveting. Here it discussed equipment for facilitating the driving of rivets in cover-plate work, and described a self-plugging rivet developed for use where only one side of the structure is available to the riveter. The possibilities of using bolted joints in place of riveted joints were considered.

The committee then discussed the need for reducing the weight of tools and equipment by using various light metals, such as aluminum and magnesium. Various needed improvements in the design and construction of scaffolds were also mentioned. In conclusion, the committee found "that the manual effort involved in doing work must be lightened to attract workmen to the railroad, and that all work must be done as economically as possible if the railroads are to survive."

Glued, Laminated Members for Bridges

The report of the committee on Glued, Laminated Members in Bridges consisted in large part of a detailed discussion of the physical requirements and properties of members formed in this manner. First, however, the committee pointed out that such members have been installed in bridges on a number of railroads including the Atlantic Coast Line, the Chesapeake & Ohio, the Spokane, Portland & Seattle, the Southern, the Southern Pacific, and the Texas & Pacific. The chairman of the committee making this report was Lee Mayfield, resident engineer of the Missouri Pacific, Houston, Texas.

Subjects discussed by the committee included the grades of lumber required for laminated members, the construction and location of joints, the requirements as to machined surfaces, the nature of the glue required and its application, and the preservative treatment of such members. It was pointed out in the latter connection that "modification of treatment may be necessary when the lumber is intended for laminating after it is treated."

The relative strength of laminated members also came in for discussion, in which it was pointed out that the properties of such members are essentially the same as those of solid wood, but that laminated members, if well constructed, "are usually more uniform in strength properties and less apt to change shape with variations in moisture content." With reference to cost the committee said, among other things, that although initial costs on the basis of footage will usually be higher for laminated timber, true comparative costs can be appraised only in the light of long-run installation and maintenance costs."

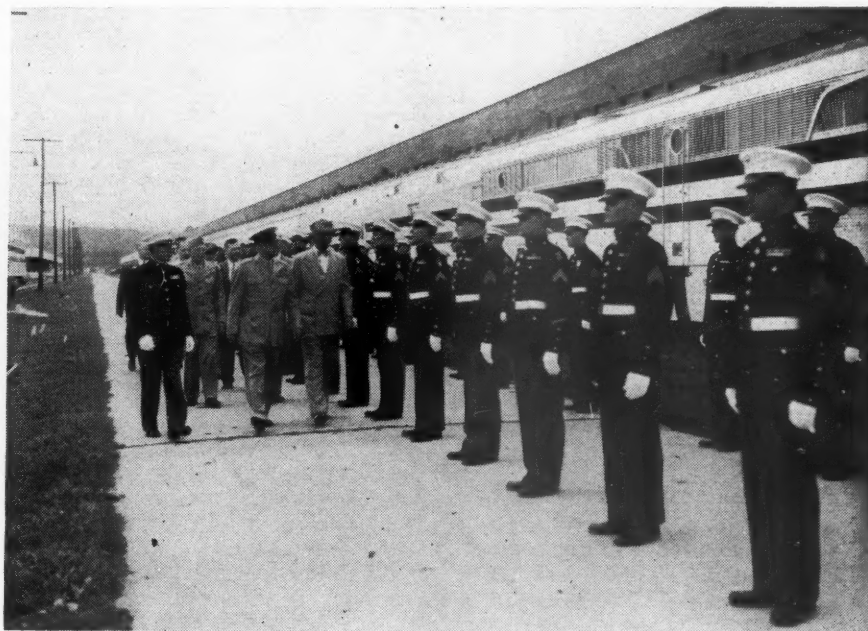
Speaking of the advantages of laminated members the committee pointed to the growing scarcity of large solid timbers, at the same time indicating that an enormous amount of repair timber will be needed for the timber trestles now in service "if they are to obtain their maximum service life. It is doubtful whether, after a few years, sufficient repair material of solid lumber will be available at a cost that will not be prohibitive.

"Where then can repair material be obtained? The answer may lie largely in laminated members."

Freedom Train on Year-long Tour

DURING the opening phase of its scheduled nationwide tour the Freedom Train has been host to large throngs of people in each community visited. Beginning its tour of over 300 communities in 48 states on September 17, the red, white and blue train has thus far been exhibited at Philadelphia, Pa.; Atlantic City, N. J.; Trenton, Elizabeth and Paterson; various places in New York City; Stamford, Conn.; Bridgeport, Waterbury and Hartford.

In its three exhibition cars, the train contains documents ranging chronologically from a letter written by Christopher Columbus in 1493, announcing his discovery of America, to the Charter of the United Nations, signed in 1945. Among the documents are the Mayflower Compact, Jefferson's draft of the Declaration of Independence, the Bay Psalm Book, Washington's copy of the Constitution, the manuscript of "The Star Spangled Banner," the Emancipation Proclamation, Japanese and German surrender documents, and the flag raised



The U. S. Marine Corps' Freedom Train security guard reviewed by General A. A. Vandergrift, commandant of the U. S. Marine Corps, Lieutenant Col. R. F. Scott, commanding officer of the Marine Guard; Attorney General Tom Clark, a sponsor of the Freedom Train; Dr. S. J. Buck, archivist of the United States; and Dr. L. H. Evans, Librarian of Congress

on Mount Suribachi in the invasion of Iwo Jima.

Sponsored by the American Heritage Foundation, New York, the tour of the Freedom Train is essentially educational. As announced by its sponsors the objectives of the train are:

To develop a greater awareness, and a keener appreciation, of the advantages we have in this country, emphasizing the relationship of our hard-won civil liberties to our development as the greatest nation of free people in the world's history.

To persuade all Americans that only by active personal participation in the affairs of our nation can we safeguard our freedoms, preserve the liberties from which all these advantages flow, and continue to demonstrate to the world and ourselves, that the way of free men is best.

The program comprises three phases: the tour of the train, financed by, and the sole responsibility of, the American Heritage Foundation; the community programs promoted by the foundation, but for which the foundation is not directly responsible; and the national program—a 12-month campaign of public education on good citizenship.

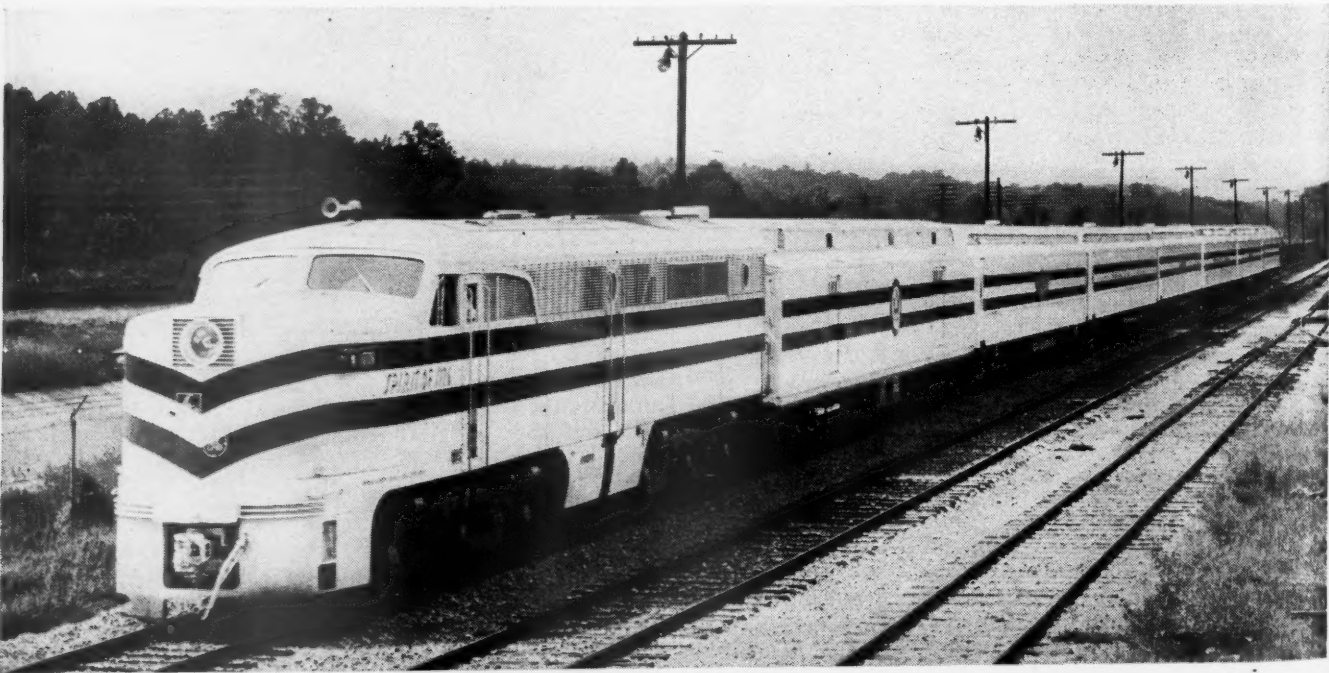
Powered by a 2,000-hp. Diesel-electric locomotive, the schedule of the seven-car train to March 1, 1948, is as follows:



Freedom Train security guard on duty in the exhibit car which carries famous papers of World War II

Date	Place	Date	Place	Date	Place	Date	Place
October							
5-6	New Haven, Conn.	11	Albany, N. Y.	18	Brunswick, Ga.	24	Tulsa, Okla.
7	New London, Conn.	12	Scranton, Pa.	19	Jacksonville, Fla.	25-26	Oklahoma City, Okla.
8	Providence, R. I.	13	Wilkes Barre, Pa.	20	Miami, Fla.	27	Enid, Okla.
9	Worcester, Mass.	14	Williamsport, Pa.	21	Tampa, Fla.	28	Ada, Okla.
10	Lynn, Mass.	15	Altoona, Pa.	22	Tallahassee, Fla.	29	Denison, Tex.
11-12	Boston, Mass.	16-17	Harrisburg, Pa.	23	Pensacola, Fla.	30	Dallas, Tex.
13-14	Rutland, Vt.	18	Reading, Pa.	24-26	Mobile, Ala.	31	Fort Worth, Tex.
15	Burlington, Vt.	19	Allentown, Pa.	27	Selma, Ala.		
16	Montpelier, Vt.	20	Chester, Pa.	28	Montgomery, Ala.	February	
17	Concord, N. H.	21	Wilmington, Del.	29	Tuscaloosa, Ala.	1-2	Waco, Tex.
18	Nashua, N. H.	22	Salisbury, Md.	30	Birmingham, Ala.	3	Tyler, Tex.
19-20	Lowell, Mass.	23	Dover, Del.	31	Columbus, Ga.	4	Beaumont, Tex.
21	Lawrence, Mass.	24-26	Baltimore, Md.			5-6	Houston, Tex.
22	Haverhill, Mass.	27-28	Washington, D. C.	January		7	Galveston, Tex.
23	Dover, N. H.	29	Charlottesville, Va.	1	Macon, Ga.	8-9	Harlingen, Tex.
24	Augusta, Me.	30	Lynchburg, Va.	2	Atlanta, Ga.	10	Corpus Christi, Tex.
25	Bangor, Me.			3	Chattanooga, Tenn.	11	Austin, Tex.
26	Lewiston, Me.	December		4-5	Nashville, Tenn.	12	San Antonio, Tex.
27	Manchester, N. H.	1	Lynchburg, Va.	6	Jackson, Tenn.	13	Del Rio, Tex.
28	Open date	2	Roanoke, Va.	7	Memphis, Tenn.	14	El Paso, Tex.
29	Fitchburg, Mass.	3	Winston-Salem, N. C.	8	New Orleans, La.	15-16	Santa Fe, N. M.
30	Springfield, Mass.	4	Charlotte, N. C.	9	Hattiesburg, Miss.	17	Albuquerque, N. M.
31	Pittsfield, Mass.	5	Greensboro, N. C.	10	Meridian, Miss.	18	Douglas, Ariz.
		6	Raleigh, N. C.	11-12	Jackson, Miss.	19	Tucson, Ariz.
November		7-8	Norfolk, Va.	13	Vicksburg, Miss.	20	Phoenix, Ariz.
1	Schenectady, N. Y.	9	Richmond, Va.	14	Monroe, La.	21	Yuma, Ariz.
2-3	Utica, N. Y.	10	Wilmington, N. C.	15	Alexandria, La.	22	San Diego, Cal.
4	Rome, N. Y.	11	Columbia, S. C.	16	Baton Rouge, La.	23-24	Los Angeles, Cal.
5	Syracuse, N. Y.	12	Spartanburg, S. C.	17	Shreveport, La.	25	Pasadena, Cal.
6	Rochester, N. Y.	13	Greenville, S. C.	18	Texarkana, Ark.	26	Pomona, Cal.
7	Buffalo, N. Y.	14	Augusta, Ga.	19-20	Little Rock, Ark.	27	San Bernardino, Cal.
8	Elmira, N. Y.	15-16	Charleston, S. C.	21	Pine Bluff, Ark.	28	Riverside, Cal.
9-10	Binghamton, N. Y.	17	Savannah, Ga.	22	Fort Smith, Ark.	29	Bakersfield, Cal.
				23	Muskogee, Okla.		

Freedom Train



Coal Station Operating Requirements

A committee of the Railway Fuel and Traveling Engineers' Association discusses importance of location, freezing and relation of storage and dispensing objectives to design

THERE have been many changes in railroad operation, labor conditions, and railroad requirements since the last committee report on coaling stations was presented before this association. Competition demands speedier train service. Higher unit labor costs demand a greater outlay of labor-saving equipment. Larger and more costly locomotives necessitate maximum utilization.

The servicing of locomotives, therefore, becomes of vital importance to efficient operation, and the coaling station must satisfy the demand for time saving, convenient utility, and economy. The success or failure of such installations is directly dependent upon the experience and judgment of the men upon whom the decisions rest. It has been the practice on some railroads for the management to place perhaps too much responsibility on the engineering department and accept from them plans which appear to be satisfactory, without seeking the approval of the supervisory employees actually involved in the proposed dock's servicing operations. This practice may lead to costly errors and inefficient operation.

The Location Problem

The location of the proposed facility is of material consequence. Both present conditions and possible future changes in operation and equipment should be taken into consideration. In the past it was felt necessary to have the coaling facility as an adjunct to the enginehouse facility. This location has, in many cases, prohibited the operation of locomotives through such terminals. Such a concrete coaling station was built at a terminal where it was expected that engines would tie up. Some time later the same management decided to operate train service through this station and found it necessary to build a main-line coaling station and retire the one at the terminal. A large-capacity concrete coaling station was erected near an old enginehouse at an important terminal. When a new enginehouse was proposed, a new location was chosen. The dock was retired and dismantled after serving only a portion of its expected usefulness, and a new coaling station was included

at the new location. Thus, the age and adequacy of other related facilities enter into the problem of location.

Because of the ever-changing railroad operation, the type of dock construction—steel or concrete—demands some study. Each type has its own advantages, dependent upon its geographical location and its estimated useful life. It is, however, a fact that a steel dock may be moved to another location if necessary, while a retired concrete dock yields little usable salvage and involves costly demolition and disposal.

The increased coal-carrying capacity of locomotive tenders should be considered when planning between-terminal coaling stations. The track grade at and near such a location is of vital significance.

The location necessarily must provide sufficient space for the desired track layout. The track layout is a railroad responsibility and is also of sufficient importance to justify a conference of the men destined to handle the actual proposed operation. The docks at terminals should be readily available to main-line locomotives in through-train service, to inbound and outbound hostlers without using the main line, and to switch engines without main-line interference. The dock design should fit the track layout at terminals rather than having the track layout fit the dock design. A very large multi-track coal dock was so placed with respect to the enginehouse that its track layout will not allow of an efficient locomotive handling operation and a material portion of the dock is, therefore, not in use. An experienced enginehouse foreman could have pointed out the error of this location and its track arrangement.

Obviously, the coal unloading track should be of sufficient capacity so that loads and empties may be handled with the minimum amount of switch-engine time and with as little interference with the dock operation as is possible. This track should be so graded as to afford convenience of car handling. Car stops, either movable or stationary, should be installed on the unloading track to allow cars (loaded or empty) to be controlled without liability of accident. Some coaling stations are equipped with car pullers which also act as car retarders. The dock unloading track ought to provide for a receiving hopper opening of

not less than 20 ft. so that an entire car may be emptied with one spotting. It must, however, be borne in mind that the length of this hopper opening bears a relation to the depth of the receiving hopper.

Breaker bars are essential both as a protection against large size coal and as a safety measure. Light sprays of water are found to be beneficial to control dust while unloading dry coal. As the content of fines increases, the spraying becomes more of a consideration.

Freezing Problems

The underground spaces, unless properly protected against the accumulation of water, are a constant source of trouble, especially during freezing weather. Shallow unloading pit arrangements are now available. Curtains are also available to inclose the track openings at the unloading pit.

One of the major winter operating problems of our northern railroads is handling frozen coal. The first problem is unloading the frozen coal from cars. The coal in the hopper bottoms where the water has collected is normally frozen solid and must be thawed by the application of heat—usually from heating torches, salamanders or thawing pits. After the hopper coal has been thawed and freed, a portion of the coal in the interior generally is more or less loose, leaving the top crust and a layer of frozen coal next to the sides, ends, and floor of the car. At one coaling station having badly frozen coal the use of oil feed thawing pits reduced the man-hours required for unloading by four and five hours per car. An electrically driven vibrating machine, called a car shakeout, supported above the car unloading point is lowered to rest on the top of the side members of the car. When current is applied, a rhythmical seismic action, at a frequency of 1,000 cycles per minute, is imparted to the car, loosening all frozen coal from the top, sides and floor after initial heat has been applied to the hopper area in the case of badly frozen coal. This device is intended for constant use throughout the year in rapidly unloading cars broom clean. It is claimed that a normal unloading may be accomplished in from three to ten minutes.

Thought should be given especially

This article is taken from a report presented during the annual meeting of the Railway Fuel and Traveling Engineers' Association held at Chicago, September 15-18, 1947.

during freezing weather to enclosing the track openings of the unloading pits with curtains. If enclosed, a comparatively small amount of heat will materially help in the release of coal from such cars as may be allowed to remain in the heated area.

The second problem is that of coal freezing and becoming immobile in the dock bin. During freezing weather a very large portion of the coal entering the dock bin is normally saturated with water. Perhaps we should devise ways and means of furnishing carloads of loosely loaded frozen coal, or loose coal from storage piles, or from dead storage bins which may be heated more practically than a live storage bin or a railroad car. In any event, the aim during freezing weather should be to minimize the amount of wet coal which is allowed to enter the dock bin and to keep the dock coal moving.

The methods of preventing the freezing of the coal in the dock bin include electrical heaters on plates at dock outlets, steam coils, and heated air. There is a de-icing and drying installation for coal docks on the market which introduces steam into heater tubes placed on bin slopes and enclosed in a vapor escape stack placed at or near the center of the bin. It is claimed that very satisfactory results were obtained under very low temperature conditions with such an installation.

C. L. Hartshorn, assistant to general mechanical superintendent, New York, New Haven & Hartford, reports a successful operation with his adaptation of equipment used during the war for pre-heating airplane engines. The first unit tried was a model GT 3050 Herman Nelson self-powered portable gasoline-burning heater weighing 312 lb. Canvas ducts from this heater were carried to the chute throats and the highly heated air, fan blown, was directed into the throat of four chutes. With temperatures of 2 deg. F. the chutes so heated remained free and operative. A Janitrol portable heater was also satisfactorily used. We are advised, however, that these heaters have been discontinued by the manufacturers.

Storage and Supply Objectives

The proposed dock bin capacity of live storage (that is, readily flowing coal) and its relation to the operation of docks is worthy of much study by both the operating and mechanical personnel. Since this live storage must be supported at a height sufficient for rapid disbursement, it becomes the major factor in connection with the cost of the facilities, and its tonnage should be carefully determined. The relationship of the bin capacity and the maximum daily disbursement during each eight hours of the day must also take

into account the rate at which coal may be unloaded and elevated during the desired working shift or shifts. At terminals where cranes (on-track, caterpillar, or overhead cinder cranes) are readily available, such equipment may be used in case of dock failure to protect the coaling operations. This should be considered in relation to dock bin capacity.

Thought should be given to a facility that would provide a moderate live storage in an elevated bin together with a materially larger tonnage of readily available dead storage perhaps in a silo bin or in a bin encased in the supporting structure of the live storage bin. The dead-storage-bin floor, sloped toward the hoisting bucket or buckets, should rest on the ground. The dead storage should be handled by the same elevating machinery and be an overflow from the live storage to be re-elevated as required. Such arrangements are now in service at commercial plants, one having 135 tons of live storage and 380 tons of dead storage. Such a program would effect a saving in per diem, might save some switching, and would offer protection during times of irregular coal supply.

Fuel Disbursement

The next important deliberation centers about the design and the expected results desired in connection with the fuel disbursements. Too often this problem has been approached on the same basis as the handling of gravel. There has been in the past, and will probably be in the future, a demand for different sizes or grades of coal to be disbursed from the same dock. Many conditions arise that justify the construction of a two-bin dock. During periods when the better coals are obtainable only in limited quantities, it is of great advantage to furnish the better coal to the most essential service.

The cost of coal has increased so materially that the subject of weighing devices now carries added importance. During the life of our association we have seen price advances of over 500 per cent on run-of-mine and considerably greater on the small slack sizes. Coal-dock scales seem to be difficult to maintain and do not seem to be used regularly unless handled by a responsible dock man during each shift. It is, of course, a marked advantage to check locomotive performance by actual scale weight.

There are available for railroad use heaters for bin installation, magnetic separators, vibrating screens, crushers, car vibrators, track heaters for thawing, etc. The accumulative experience and the inventive genius of present-day railroad and coal-dock construction engineers are able to meet all reasonable demands for performance.

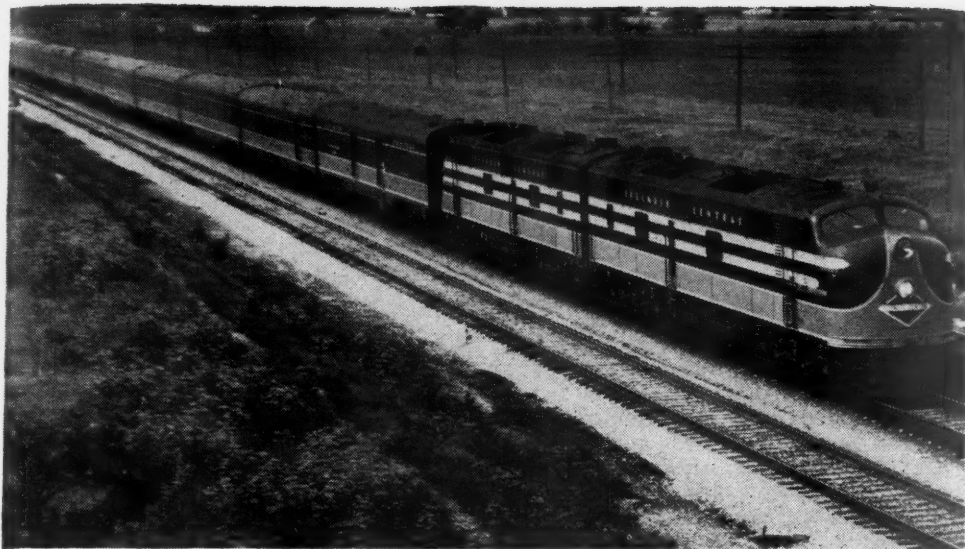
It would, therefore, be logical to provide portable car unloaders and flight conveyors for small coaling stations. Under present conditions it would appear profitable and convenient to unload a month's supply, or perhaps more tonnage, on the ground at small coaling stations where the time element is not of importance, for reloading as required. One-half sections of culvert pipe, perhaps 30 in. long, may be laid on the ground at right angles to the track prior to unloading the coal so that a car unloader may be slid under the pile as coal is reloaded.

Ash Disposal

The quality of coal available is also changing, the tendency being toward a lower B.t.u. value and a higher ash content. Because of limited ash-pan capacity, ash disposal is of greater consequence. If deemed necessary, after due deliberation, it is of vital importance to consider ash disposal along with the coaling station plan. Should water service and sanding facilities be required, these services should also be considered along with the coaling-station plan. All of these services may be had at one engine spotting and the service time element may, therefore, be held at a minimum.

The members of the committee who prepared this report are Glenn Warner (chairman), fuel supervisor, Chesapeake & Ohio, Pere Marquette district; J. B. Bray, president, Fairfield Engineering Company; N. L. Davis, sales manager, Link-Belt Company; W. G. Dietrich, manager, railroad department, Roberts & Schaefer Co.; W. F. Anderson, manager, construction division, Fairbanks, Morse & Co.; D. E. White, vice-president, Ross & White Company; J. G. Foster, vice-president, Ogle Construction Company; M. C. Ham, Barber Green Company; A. E. DeForest, assistant to superintendent of equipment, Michigan Central; W. E. Sample, superintendent fuel conservation, Baltimore & Ohio; G. E. Anderson, general fuel supervisor, Great Northern; P. E. Buetell, assistant supervisor, fuel and water service, Chicago, Milwaukee, St. Paul & Pacific; R. W. Hunt, fuel supervisor, Atchison, Topeka & Santa Fe; J. G. Crawford, fuel engineer, Chicago, Burlington & Quincy.

The operation on branch lines should be carefully studied prior to investing in immobile coaling facilities. The tendency has been to purchase heavier and more powerful locomotives for main-line use; the purchase of small locomotives was discontinued years ago. The time is near when either new light power will have to be purchased or many track and roadbed betterments will have to be made. The lighter power may be Diesel.



The "City of New Orleans," running from the Great Lakes to the Gulf of Mexico in one day, often handles more than 1,000 passengers

I. C. Dayliner Builds Passenger Traffic

"City of New Orleans" streamliner attracts new travel and boosts passenger revenues on 921-mi. daytime run

THE two "City of New Orleans" streamlined trains placed in service by the Illinois Central on April 27, 1947, grossed \$1,000,000 by the 94th day of their operation, and the rate of riding is still on the increase. Based on earnings for the month of August, annual operation of these all-coach Chicago-New Orleans trains will gross \$6,200,000 in passenger fares.

The two new Diesel-powered trains represent an investment of \$3,200,000. Prior to their installation, their prospective success could be predicated only on the extraordinary earnings of similar trains placed in service prior to the war—either on much shorter daytime runs, like the "Daylights" on the Southern Pacific, or trains on similar long runs, but scheduled as overnights, such as the "Trail Blazers" on the Pennsylvania. Public favor of the two new dayliner trains, however, was immediate and patronage continued to mount since their inception, as indicated by the following monthly totals of passengers carried:

	South-bound	North-bound	Total	Average Pass. Per Train
May	16,783	19,340	36,123	583
June	22,171	27,321	49,492	825
July	27,418	35,357	62,775	1,013
Aug.	31,094	37,318	68,412	1,103

The steady advance in gross earnings, during a period when coach fares re-

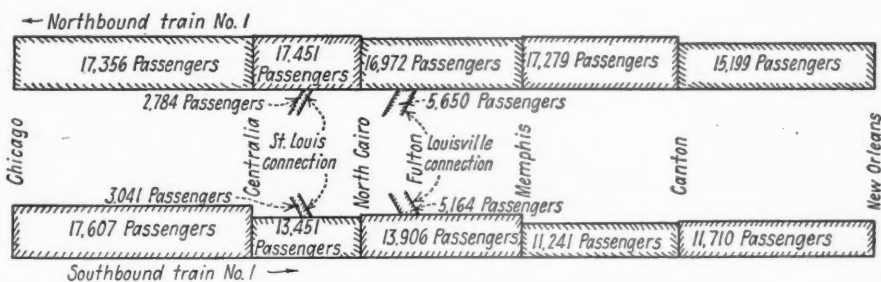
mained unchanged in the territory served, is indicated by the following table:

	Gross Earnings Per Mile
Apr. 27-30	\$2.42
May	4.00
June	6.04
July	7.81
August	8.93

The "City of New Orleans" leaves the respective terminals at 8 a.m., arriving at both final terminals at 11:55 p.m., averaging 58 m.p.h. and making 22 intermediate stops, including 63rd street at Chicago and Carrollton avenue at New Orleans. No restrictions apply to travel between any stations at which the trains

are scheduled to stop, and heavy local patronage between intermediate stops has proven largely responsible for the success of the trains. The average passenger travels a distance of about 350 mi. During August, train No. 1 southbound arrived at New Orleans with an average of 218 passengers, and No. 2 arrived at Chicago with an average passenger load of almost 600. The accompanying chart, showing the traffic density by operating divisions, both north and southbound, serves to show how, with relatively little through traffic, intermediate riders maintain the passenger volume on all divisions of the 921-mi. run.

Twelve cars are normally assigned for the through run. There are two



"City of New Orleans" traffic density chart, illustrating total number of passengers carried, northbound and southbound, by operating divisions during August, 1947

A detailed description of the "City of New Orleans" appeared in *Railway Age*, May 10, page 930.

head-end cars—a baggage-dormitory car with daytime rest facilities for the train staff, and a mail and express car. Five coaches seating 56 passengers each are designated for short and intermediate haul passengers and 2 Day-Nite coaches, seating 48 each, are provided for through and long-haul travel. A full dining car, a diner-lounge, and an observation-tavern-lounge car complete the Chicago-New Orleans consist. A through coach from St. Louis, Mo., to New Orleans operates on a complementary train between St. Louis and Carbondale, Ill., and a through coach from Louisville joins the train at Fulton, Ky., making 14 assigned cars between Fulton and New Orleans. Extra coaches are frequently added to the consist to meet travel peaks, particularly on week-ends.

Advance reservation of seats is not practical because of the volume of intermediate travel. To effect even distribution of passengers throughout the

train and to control and facilitate loading and unloading at intermediate stops, a car assignment arrangement is employed at the three heaviest origin points—Chicago, Memphis, Tenn., and New Orleans. Each passenger, as he offers his transportation for inspection at the train gate, is handed a printed card designating his coach, the long-haul travel being assigned to the Day-Nite coaches and short-haul passengers to the other coaches according to destination. The coach porters direct passengers to their assigned cars.

Replaces 24-Hr. Train

The "City of New Orleans," on its 15 hr. 55 min.-schedule, replaces the "Creole," which carried both coaches and Pullmans, and consumed 23 hr. 15 min. southbound and 24 hr. 35 min. northbound for the same run. At the same time, the "Miss Lou" was placed

in service augmenting the "City of New Orleans" between New Orleans and Jackson, Miss., 183 mi. (The "Miss Lou" is the original "Green Diamond" streamliner which operated between Chicago and St. Louis until its recent replacement by a new streamliner.) Since its inauguration, the "Miss Lou" has consistently exceeded its limited seating capacity of 120 passengers. Operation of the new trains definitely indicates that the new service has created new travel for the railroad and that other trains operating in similar service have not been affected adversely.

Coaches for the "City of New Orleans" were constructed by the Pullman-Standard Car Manufacturing Company. All other cars were built in the Burnside, (Ill.) shops of the Illinois Central. Each train is powered by a 6,000-hp. three-unit Diesel locomotive, built by the Electro-Motive Division of General Motors Corporation.



Diesel-operated sight-seeing train at the summit on the Manitou & Pikes Peak Railway

Diesel Locomotives on Pikes Peak

A SECOND Diesel-electric locomotive has been placed in service on the Manitou & Pikes Peak. It weighs 24 tons and is rated 450 hp. With two Diesel-electric units now in operation, the old tilt-boiler steamers are used only when sightseeing traffic becomes very heavy. The first Diesel-electric unit to be operated on a rack railroad, a 20-ton General Electric locomotive powered by three tilted-base 150-hp. Diesel engines, entered service in 1939.

Capable of developing 30,000-lb. tractive force on the rack rail through gears on the axles, the new locomotive travels the 8.9 miles from Manitou, Colo., to the summit in one hour and twenty minutes. A maximum speed of

12 m.p.h. is permitted by the railway on the average grade of 16 per cent and approximately 6.5 m.p.h. on the 1¼-mile section which has a 25 per cent grade.

Operated with a 12-ton, 56-passenger observation car, the modern design of the locomotive and car give a streamlined effect. A unique factor in the operation of the train is that the locomotive and car are not coupled together. On the ascent, the Diesel-electric pushes the observation car, while on the descent, the locomotive acts as the brake, preceding the car. A roller, 5¾-in. in diameter by 18 in. in length, mounted horizontally on the center line of the locomotive and 28 in. above the top of

the rail, bears against a similar roller mounted vertically on the car.

There are four 600-volt, four-pole, d.c. commutating pole series traction motors, with a 125-hp. hourly rating and 108-hp. continuous rating—two on each of the two axles. Rubber-mounted on the locomotive frame, the motors drive the axles through double universal joints and double reduction gearing. Power is transmitted from the axles through rack gears to the road rack.

Direct-connected to each Diesel engine through a flexible steel disk coupling is a 230-volt, d.c., shunt field generator. Each generator is rubber mounted on a three-point suspension. A generator

(Continued on page 59)

For Air Transport, the Taxpayer Pays

Report issued by Railroad Committee for Study of Transportation says subsidy provided by federal government alone is already "far in excess of any that has ever been made to any other public utility or industry"

AIR transport has achieved "an important and secure place in public transportation," but the present rate structure of the air lines is sustained by public aids of a magnitude not generally known by the taxpayers who provide them, according to a report which has just been issued by the Subcommittee on Air Transport of the Railroad Committee for the Study of Transportation. The report found that the federal government alone has provided the air carriers with a subsidy that is already "far in excess of any that has ever been made to any other public utility or industry."

The subcommittee, headed by H. W. Dorigan, assistant vice-president of the New York, New Haven & Hartford, was part of the group which carried out a five-year research program under the general chairmanship of R. V. Fletcher, special counsel of the A.A.R. and formerly, in turn, the association's vice-president—research and president. This general committee's final report was reviewed in the *Railway Age* of September 13, page 67.

A Comprehensive Report

The "Air Transportation" report is a document of 127 double-column pages which "comprehensively reviews virtually every phase of air transportation," as Judge Fletcher's foreword put it. It outlines the development of domestic and international operations, and technical progress in the industry, then successively takes up the transportation of passengers, mail, express, and freight; air line and equipment and operating costs; and questions of taxation. Private flying and matters relating to the provision, financing, and administration of airports are also discussed, while other chapters consider the character and extent of public aids to air operations and state and federal legislation, with a concluding statement on the outlook for air transportation.

That part of the report which made the assertion that the magnitude of public aids to air transport is not generally known to the taxpayers went on to say that "few people know that without these subsidies the air lines would not be able to give free meals and offer rates which are competitive with the unsubsidized surface transpor-

tation." Also, it was stated that the assumption by the taxpayers of "a substantial part of the cost of operating the huge domestic air network makes possible rates and fares based not upon costs of operation, but only upon that portion of the cost borne by the air carriers themselves."

The subcommittee then proceeded to report that "there is apparent a growing body of opinion among economists and officers of government—and even on the part of some air line executives"—that the air carriers, having become "large and powerful," must become self-supporting "in the near future." Noting that the railroads and air lines are "competing vigorously for passenger business," the report emphasized the railroad belief that public aids have been "a major factor" in making possible "low" rates for air transport which is "inherently costly."

Subsidies Affect Rates

"If public aid to the air carriers should be curtailed or abolished," the report also said, "they would be compelled to raise fares and charges more in line with the proper total cost of service furnished. This would permit a selection by the traveling public on the basis of real comparative costs of service which would accentuate certain advantages the railroads possess over the airplane on a proper dollar value basis—such as dependability, all-weather performance, privacy, comfort, superior dining facilities, the ability of passengers to move about freely while the train is in motion, superior opportunities for sightseeing, overnight luxury trains between distant cities, centrally located passenger stations, and the ability of the railroads to vary the length and capacity of trains as traffic volume fluctuates."

Meanwhile, the subcommittee had criticized the Civil Aeronautics Board's restrictive interpretation of the Civil Aeronautics Act's section 408(b) which provides that if a person or corporation seeking to acquire control of an air carrier is "a carrier other than an air carrier" acquisition of control shall not be permitted unless the board finds "that the transaction proposed will promote the public interest by enabling such carrier other than an air carrier to use aircraft to public advantage in its opera-

tions and will not restrain competition." C.A.B. "spokesmen," as the report put it, "have been frank in making clear that the present attitude of the board is that applications from surface carriers for permission to operate air service will not be favorably considered."

C.A.B. Arbitrary

"That clause," the subcommittee continued, "has been accorded a significance far beyond its literal meaning and, it is believed, beyond the intent of Congress. . . . The railroads' viewpoint is that they should be permitted to use air facilities whenever an appropriate regulatory authority finds that the proposed operation would serve public convenience and necessity, or whenever acquisition of existing air service is found to promote the public interest. Arbitrary exclusion of the railroads from the field of air transportation beyond the necessary safeguards to avoid wasteful oversupply of facilities increases the cost, prevents achievement of most convenient service to the public, is unfair to taxpayers, and hampers the orderly development of private enterprise."

The subcommittee's analysis of arguments against railroad participation in air transport indicated that there are "no grounds" to fear monopoly. "There is no basis," the report added, "for believing that railroads would stifle air transport, or be at a disadvantage for lack of experience, or that a railroad would retard improvements in train service if also conducting an air service. On the contrary, a more effective competition between independent and subsidiary air line companies would develop."

Before getting into the foregoing matters, the subcommittee had summarized its studies as to the extent of air transport services. Early this year, it found, the certificated domestic air lines were operating 61,197 route miles; they were using about 700 planes, employed about 70,000 persons, and had assets of \$393 million. Their 1946 gross was \$316 million, of which \$276 million came from passengers, \$9.3 million from express, \$4.3 million from freight, \$21.1 million from mail and \$6 million from all other sources. The net result was a loss of \$7.2 million, but the committee report noted that deficits of individual air lines "will be substantially reduced by

retroactive increases in air mail pay already granted in certain instances and others probably to be granted by the C.A.B."

Solvency Guaranteed

In this connection, the subcommittee later cited provisions of the Civil Aeronautics Act under which "the continued solvency of the certificated air carriers is virtually guaranteed." The cited provisions," not found in any regulatory act covering surface transportation," are those which direct C.A.B. to foster the development of civil aeronautics and air commerce and empower it fix air-mail rates in accordance with the "need" of each air carrier to maintain and continue the development of air transportation. As the subcommittee reads those provisions, the power they confer on C.A.B. "is limited only by the overall amounts that Congress from year to year may appropriate for the transportation of air mail."

In its further discussion of air-mail pay, the subcommittee told how C.A.B., in December, 1944, fixed the rate for "four major air lines" at 45 cents per ton-mile, despite its finding that the air line costs of handling the mail ranged from 26 to 29 cents per ton-mile. Contrasting the railroads' mail pay with that of the air lines, the report noted that in 1946 the Post Office Department paid the air carriers \$26.8 million for transporting 23.5 million pounds of domestic air mail. In the same year the railroads were paid \$22.1 million for transporting 396.4 million pounds of non-local first-class mail and for providing distribution facilities in railroad cars.

Mention was also made of proposals to shift all non-local first-class mail (beyond a certain minimum distance) from rail to air. The subcommittee found it "difficult to understand why the Post Office Department would advocate such action when air mail at the 5-cent rate is operated at a deficit and rail-carried non-local first-class mail is carried at a profit." On the basis of figures showing the profit from rail-hauled mail and the indicated deficit from air mail at the 5-cent rate, the subcommittee calculated that, for each pound of mail transferred from rail to air, the loss to the post office department would be 47.6 cents.

Parcel Post Subsidy

The report also referred to a bill pending in Congress which would create an air-parcel-post service at rates on a "very low scale," many of them "less than the rail express charges which the Railway Express Agency has found unprofitable." In a subsequent discussion of air express and freight, it told how

R.E.A. has, during the past 20 years, paid the air lines about \$52.7 millions. But R.E.A. is now faced with the competition of air-freight services established by the air lines at rates "lower than those they have been willing to set for air express." Another competitor in this field is the so-called non-scheduled air carrier whose charges for the most part "are based on what the operators can get." As the report pointed out, two of these non-scheduled operators are railroad affiliates—Santa Fe Skyway and Kansas City Southern Skyways, subsidiaries, respectively, of the Atchison, Topeka & Santa Fe and the Kansas City Southern.

Present freight rates of both the scheduled and non-scheduled lines are on a "below-cost" basis, in many cases being "as low or lower than the charges for first-class rail express," the report said. It added that such rates "are made possible by subsidies and other public aids," but "even with such aids many of the carriers are operating at a loss."

The big subsidy to air transport, as the subcommittee pointed out, is the provision at public expense of airports and airway facilities and services. On that score the report relied to a large extent on the Harvard Business School's 1946 study of "Terminal Airport Financing and Management." That study estimated that publicly-financed terminals used by the air lines have cost \$775 million; and that the 1945 operating costs attributable to air line use was "over \$37.4 million," as contrasted with payment by the air lines of only \$1,546,030 in 1944 for landing tolls and rents, including buildings and offices. The

subcommittee calculated that the 1945 airport subsidy amounted to \$5.70 per revenue air line passenger, or 1.07 cents per passenger-mile. "So universal has become the practice of public construction of airports that the aviation industry seems to assume it as a vested right and expects the public to bear the burden," the subcommittee observed.

It also referred to the federal government's expenditures for aids to air navigation or signal and traffic control, including the special aeronautical Weather Bureau services, which "will cost the federal taxpayers \$63.2 million in fiscal 1947." Then there are such "indirect public aids" as "aeronautical research by various branches of government, including construction and service testing of various types of transport planes."

With respect to taxes, too, the air lines were found "in a preferred and favorable position" as compared with "their principal competitor (the railroads)." Among other factors in that situation is the public ownership of "nearly all the property used by the air lines, other than their planes." Also, the social security taxes of the air lines amount to only 4 per cent of taxable payroll as compared with the railroads' 8¾ per cent. The report put the total 1945 taxes of the railroads at \$820 million; those of the air lines at \$24 million. This disparity was called "much greater in degree than is justified by the relative sizes of the two transportation industries."

On the matter of regulation of air transport, the subcommittee opposed exclusive occupancy of the field by the federal government. It thought the

(Continued on page 60)

* * *



Passengers Attend the Movies on the "George Washington"

Two shows each night in the dining cars of the Chesapeake & Ohio's twin trains—one each way between Newport News, Va., and Cincinnati, Ohio, the other between Washington, D. C., and Cincinnati—are reported to be attracting capacity attendance.



Depleted saw-timber reserves are causing tie producers and consumers anxiety about both cost and adequacy of the tie supply

Factors in Cost and Production of Ties

Record three-day convention at Hot Springs, Ark., discussed many urgent questions facing both producers and railroads

WITH a total registration of 235 members and guests, including 63 railway men, the attendance at the twenty-ninth annual convention of the Railway Tie Association at Hot Springs, Arkansas, September 23-25, topped all records as producers and users met to consider many problems within the industry and to plan for the years ahead.

All of the sessions were presided over by the president, Waldo E. Tiller, vice-president, J. A. Tiller & Son, Inc., Little Rock, Ark. The opening address on railway needs for crossties, delivered by C. Miles Burpee, vice-president, Simmons-Boardman Publishing Corporation, New York, was followed by C. E. Johnston, chairman, Western Association of Railway Executives, Chicago, Ill., who discussed the economic outlook for the railways for the near future. (See *Railway Age*, September 27, pages 528 and 538.) Among other addresses were those by Paul J. Neff, chief executive officer of the Missouri Pacific, St. Louis, Mo.; Joseph L. Miller, Reavis C. Sproull, C. D. Turley and B. N. Johnson.

The following officers and members of the executive committee were elected to serve for the ensuing year: D. B. Frampton, president, D. B. Frampton & Co., Pittsburgh, Pa.; T. H. Wagner, first vice-president, Gross & Janes Co., St. Louis, Mo.; Elmo T. Jones, second vice-

president, T. J. Moss, Tie Company, St. Louis; T. J. Turley, Jr., Bond Brothers, Louisville, Ky.; R. H. White Jr., Southern Wood Preserving Company, Atlanta, Ga.; H. R. Condon, Koppers Company, Pittsburgh, Pa.; and John F. Renfro, Taylor-Colquitt Company, Spartanburg, S. C.

In his annual report, Mr. Tiller dwelt particularly upon the efforts of the association in promoting field programs, inaugurated as early as the fall of 1946, to improve the grade and manufacture of ties, to cooperate with the railways in eliminating undesirable species and to increase the production of the proportion of larger ties for main tracks.

Mr. Neff was the guest of honor and speaker at the annual luncheon of the association on September 24, and reviewed current major problems facing the railroads. He cited the need for equitable rates that would allow the railways a sufficient return to function properly and to expand and improve in accordance with the trends of the times and the requirements of their patrons.

Timber Supply

In his paper on the forest situation in the United States, H. R. Josephson, Division of Forest Economics, Forest Service, U. S. Department of Agriculture, warned that saw-timber stands

throughout the country have been reduced by approximately 43 per cent during the last 40 years. Moreover this reduction has not been halted, as indicated by the records of 1944 when the total annual drain exceeded the estimated growth by fully 50 per cent. This disturbing reduction also has been accompanied by a sharp deterioration in quality of the remaining saw timber.

Mr. Josephson said that due to the shortage of suitable accessible saw timber there is much competition among the various wood-using industries for the preferred species such as oak, Southern pine, and Douglas fir, the three woods most desirable for ties. This competition and the usage of the less accessible and of smaller and lower quality logs are causing higher manufacturing costs and higher prices. More efficient operation probably is necessary if the tie industry is to compete on equal terms for the "sizes, grades and species of timber most suitable for ties."

About 75 per cent of the ties produced in the United States are produced in the East where only 35 per cent of our saw timber resources are located, said Mr. Josephson. Considering that the tie manufacturers, the wood preserving industry, the railroads and many foreign countries are greatly affected by the supply of ties it behooves the ties in-

dustry to note the tremendous stake it has in good forestry. For, he concluded, "To adequately meet the needs for ties, as well as the needs of the many other wood-using industries, will require that forest lands be fully put to work."

The future timber supply also was discussed by C. D. Turley, engineer ties and treatment, Illinois Central, Chicago, who confined his consideration to gum and pine in the states of Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Oklahoma and Texas. Pointing to a 14 per cent reduction of saw timber reserves in that area during the last 10 years, and citing railway needs for larger and better crossties, Mr. Turley declared that reforestation and proper forest management are imperative if future demands are to be assured.

Analysis of Tie Costs

B. N. Johnson, Koppers Company, Richmond, Ind., in an interesting analysis of the factors entering into the cost of crossties, attributed the rise in manufacturing costs to higher wage levels, more costly supplies and equipment and less efficient and experienced labor. Compared to 196 per cent rise in farm products and 148 per cent increase in food prices from 1940 to 1947, oak stumpage increased 90 per cent during the same period, he said.

Log cutting, Mr. Johnson said, now involves the use of power saws calling for larger capital expenditures than did the simple tools of a few years ago. Prevailing rates of pay for timber cutters also rose 66 per cent during the last seven years. Sawmill labor rates rose 62 per cent during the same period, while relative efficiency dropped approximately 14 per cent, resulting in an actual increase of approximately 88 per cent in mill labor costs.

F. C. Jones, of the T. J. Moss Tie Company, as chairman of the committee on the mechanical handling of ties, presented a report that reviewed the methods and progress made during the past year, particularly with respect to loading at concentration yards. Despite progress, mechanical loaders have not yet increased efficiency to the point where their use has resulted in appreciable monetary savings, although the time may come when additional developments may make their exclusive use desirable rather than supplementary apparatus.

In much the same vein the report of the committee on manufacturing practice, presented by Sherman Watkins, chairman, Koppers Company, pointed out that, while the use of power saws for felling trees speeds production, it doubted that any reduction in production costs have yet been effected through their use. On the other hand, the report empha-

sized the value and economy of Caterpillar tractors in logging operations particularly on steep slopes.

G. M. & O. Starts Research

Dr. Reavis C. Sproull, head of the wood and paper division of the Southern Research Institute, Birmingham, Ala., presented a research paper on wood for railroad use, in the course of which he pointed out the importance of greater utilization of forest products from the railway traffic standpoint by declaring that if present wasteful practices of various forest products industries in utilizing an average of only 40 per cent of a tree's potential value could be improved to complete or 100 per cent utilization, the relative railroad tonnage of forest products could be increased in proportion from 100 cars at present to 250 carloads.

The institute, Dr. Sproull continued, has been retained by the Gulf, Mobile & Ohio to study the best methods of preservative treatment for crossties, adding that the annual cost of the project would be liquidated if 24 days could be added to the service life of their ties.

The speaker said: "The recent shortage of freight cars has suggested a re-examination of the possibility for use of wood in freight car construction. In 1912 over a billion f.b.m. was used in freight cars; in 1940 only 548 million f.b.m. was applied to that purpose. The Great Northern constructed 1,000 freight cars of plywood that weigh less than conventional steel cars and more paying freight can be hauled at the same cost to the railroad or the speed of trains can be greater."

M. S. Hudson, research chemist, Taylor-Colquitt Company, as chairman, presented the report of the committee on checking and splitting of crossties. The full import of the problem, the report declared, was emphasized by the fact that during the past year, two additional groups have exhibited interest in this field. The National Lumber Manufacturers Association has under consideration a five-year research plan involving the expenditure of \$40,000 per year and under sponsorship of the Gulf, Mobile & Ohio, the Southern Research Institute has inaugurated a long range project for lengthening the service life of ties in track.

Crossties for Export

In an address on the export outlook for crossties, J. L. Miller, acting chief, Forest Products Division, Office of International Trade, U. S. Department of Commerce, Washington, D. C., said:

"Exports of railway ties will reach a record high this year of about 3½ million ties. There exists an unpre-

cedented need for many more, but, in the light of current chaotic economic conditions and dollar shortages, it is improbable that this need will materialize to any great extent into actual orders. It is not possible to predict the extent to which these orders will materialize.

"Export trade must be planned for and consistently fostered if its full advantages are to be obtained. There is an opportunity now to establish and extend the basis for a permanent, wholesome trade, which can be especially beneficial during temporary domestic slumps. But export trade cannot be turned on and off like a water tap. Former high exporting countries are bound to reappear as strong competitors.

Supplying South America

"South America is potentially a large market for American railway ties. It has been serving its own needs from its own forests, but the character and condition of the ties are poor. Aggressive salesmanship and promotion may open the door to a fertile market in that continent.

"Export controls on railway ties now apply only to those which are creosoted.

"To obtain a clear picture of the actual effective demand which now exists, we are circularizing 50 foreign countries. We hope to obtain positive or negative information on the current and prospective market opportunities for U. S. ties. As such information is received we shall make it available to you."



A pair of tie-tongs modified to make a good carrier for kegs of bolts or spikes

Musical Entertainment on Trains

Santa Fe installation of sound equipment throughout 23 trains uses four channels—two for wire-recorded music, one for announcements, and a fourth for commercial radio broadcast reception



End of a diner, showing steward looking at a loud-speaker grill in the ceiling

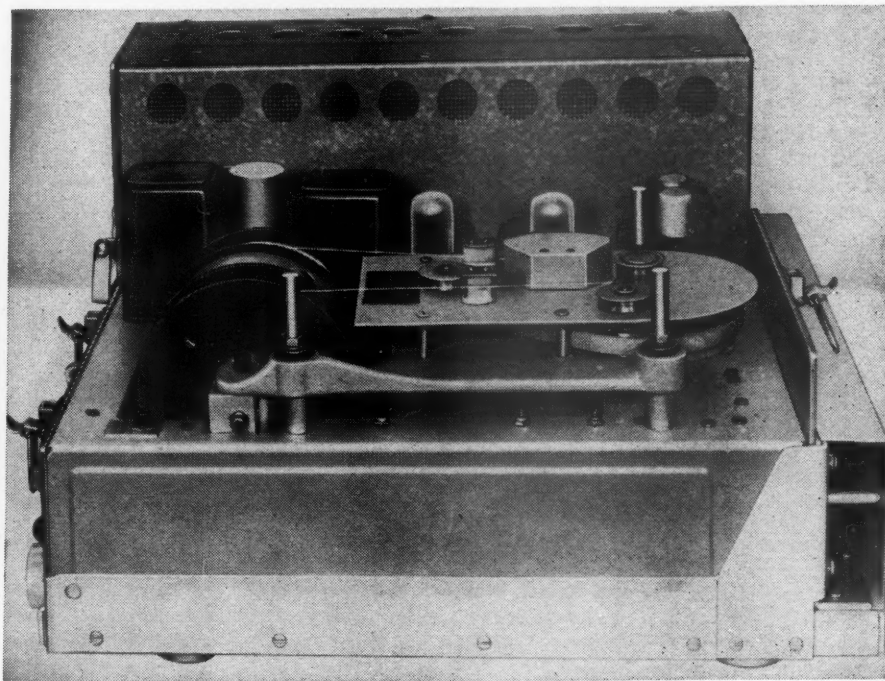
TO provide entertainment and relaxation for passengers, the Atchison, Topeka & Santa Fe has initiated the extensive installation of sound equipment on 23 through trains including about 219 cars. Special programs of luncheon and dinner music are to be provided exclusively for each dining car. For the remaining cars of each train, programs on four channels will be originated in the lounge, and by means of a train-line cable extending to other cars the entertainment will be available also to passengers in coaches and room cars. One of these channels is for popular music; a second is for semi-classical music, played from wire-type reproduction machines. A third channel is for making train announcements or calling attention to points of interest. The fourth channel is for reception of standard radio broadcast programs with selection of 16 stations which are included in all the major networks.

Constant Level of Sound

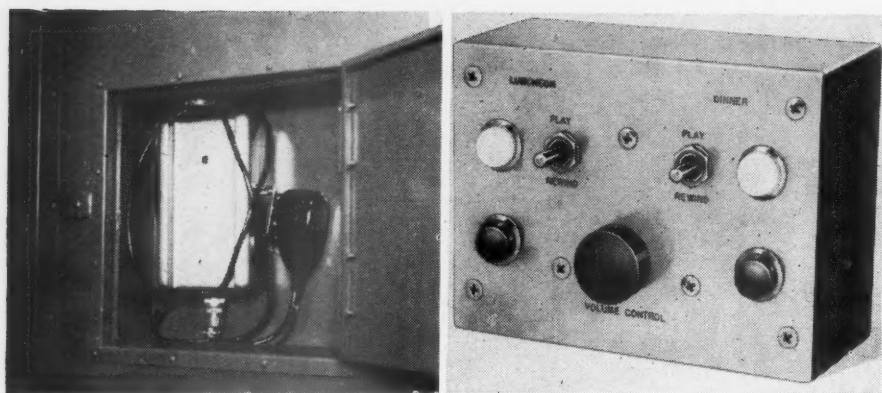
The objectives of this form of entertainment are to alleviate boredom, mitigate fatigue, relax nervous tension and provide a congenial, friendly atmosphere that is desirable when large groups of people are confined for a relatively long time in a limited space. Five or more loud-speakers are installed in the ceilings of the coaches, diners and lounge cars to afford an even distribution of low-level sound throughout each car. The ease with which the music can be heard is constant, regardless of variations in the noise when the train is traveling at speed or is standing at a station. Stated another way, the relationship of the sound level of the program to the ambient noise level in the car is held constant by a newly-developed electronic-

type level control. This is said to be an advantage as compared with the previous "stepping" type of controls, in that there are no "clicks" in the sound which might be distracting to passengers. The combination of even distribution and constant low sound level produces music in a manner that does not interfere with private conversations in the car, but is sufficiently loud to be heard and enjoyed by those who wish to listen.

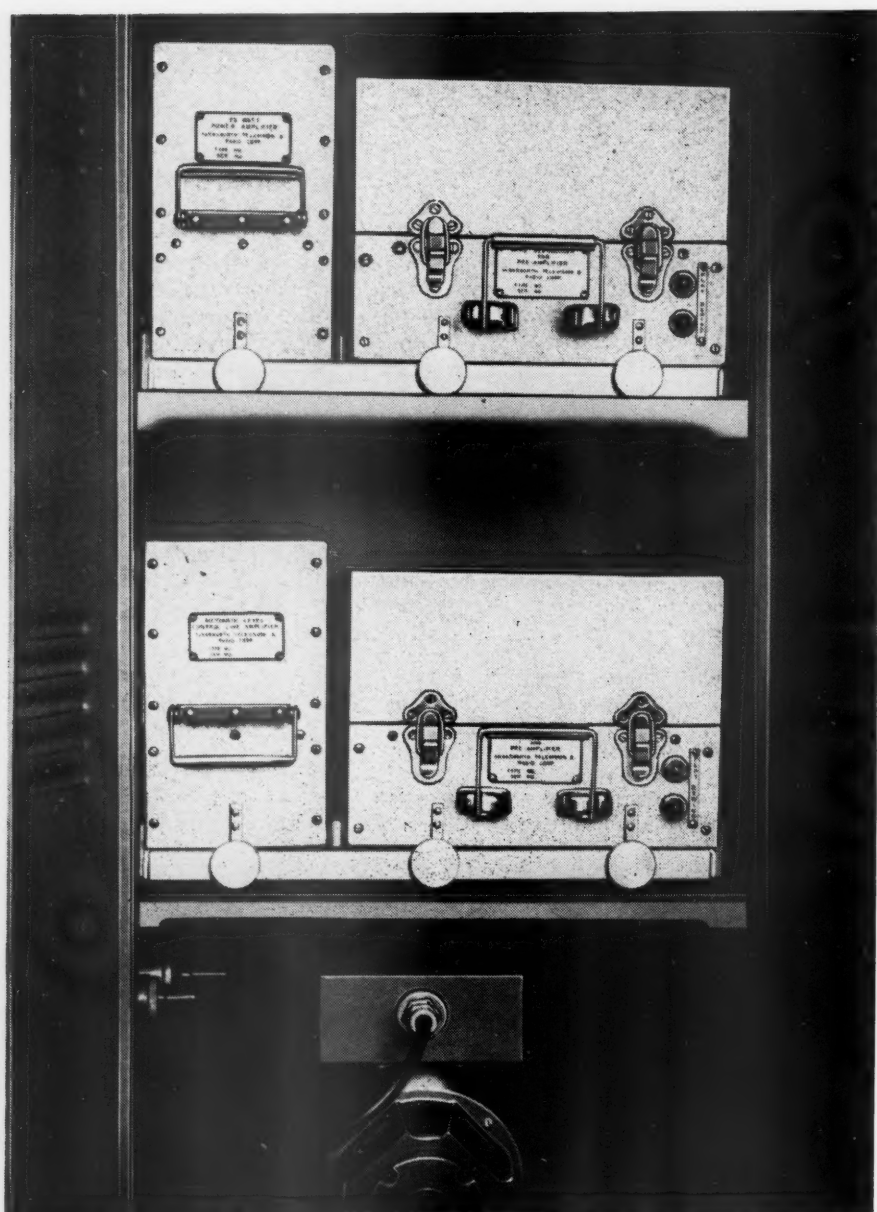
The installation in the lounge car of each train includes the equipment for originating the programs or announcements which are reproduced in the lounge car and also distributed by cables and connectors to loud-speakers in the other cars of the train, with the exception of the dining car. This equipment in the lounge car includes magnetic, wire-type sound-reproducing machines, which provide a continuous program of



Typical magnetic wire reproducer and power amplifier utilized in the entertainment system



Above left—Microphone in trainmen's quarters in a lounge car for announcing stations. Above right—Remote-control panel for operating the separate dining car music system, which provides specially recorded luncheon and dinner music. Below—Dining car music-distributing installation in a locked compartment, to which only maintenance personnel at terminals have access. A 25-watt power amplifier and a three-hour wire reproducer and preamplifier are on the top shelf, and a master automatic level control and another three-hour wire reproducer and pre-amplifier are on the lower shelf, beneath which is the special regulated converter.



popular music and a program of semi-classical music. A radio receiving set designed especially for use on trains is also located in the lounge car to receive standard broadcast radio programs from those stations nearest the train at any given time.

By means of a set of selector switches, accessible to the lounge car attendant only, he selects either the incoming radio program or the music from one or the other of the magnet-wire reproducing machines, to be reproduced in the loud-speakers in the lounge car. If he sets the switch for the radio receiving set, then he operates the station selection buttons on the radio.

Also included in the lounge car equipment is a microphone by means of which the attendant can make announcements or call attention to scenery along the way. When he takes this microphone off its hook, the loud-speakers in this car, as well as in the coaches, are cut off from the music program and are connected to the microphone circuit. A second microphone on circuit, located in trainmen's quarters in the lounge car, can be used to announce stations.

Also in the Other Cars

In each private room in the room-type sleeping cars there is a loud-speaker, a volume control and a selector switch by means of which the passenger can select any of the programs originating in the lounge car. When the attendant or a trainman in the lounge car picks up his microphone, the words "Train Announcement" are lighted on a small panel above the selector switch in each private room in the room cars. If a passenger wants to hear the announcement, he must push a button; otherwise, the musical program is not interrupted.

In each coach a selector switch and volume control are located in a cabinet which is accessible only to the car attendant. This attendant selects one of the programs originating in the lounge car. The equipment is so arranged that when the lounge car attendant calls a station or makes an announcement the music program is interrupted for it.

In order to provide a different type of music in the dining car, the sound equipment in each of these cars is separate from the system for the other cars of a train. Two of the magnetic-type wire reproducing machines are installed in each diner; one reproduces luncheon music and the other dinner music. At the beginning of a meal period the steward starts one of the machines and allows it to run until all passengers are served.

The sound system being installed on these trains was developed, as a whole, especially for service on railroads, by the Farnsworth Television & Radio Corp., Fort Wayne, Ind. The magnetic-wire-type sound reproducing machines were

developed and made to Farnsworth specifications by the Brush Development Company, Cleveland, Ohio, especially for inclusion in the Farnsworth sound system for use on trains. The operation of these machines is not affected by movement of the train.

The brass wire for this use is electroplated with a highly magnetic material. The recording is magnetically impressed on this plating. As used in the sound reproducing machine, the wire, as it is wound from one spool to another, passes between the poles of an electro-magnet, thereby through electronic devices causing the music to be reproduced. The wire travels 135 ft. each minute, and each spool, which is 4.5 in. in diameter, holds 4 mi. of wire, which is enough to play three hours. In each dining car the three-hour program is ordinarily long enough for the entire meal period without rewinding. In order to discourage people from lingering at the tables merely to listen to the music, the program is interrupted for 5 min. at the end of each 40-min. playing. In period between meals the wire record is rewound so it is ready to be played again.

In each lounge car are two machines for each of the two musical channels so arranged for each channel that, when a wire record is nearly unwound, a second machine cuts in automatically. The first machine then rewinds, this operation also being automatic. A white lamp for each machine is lighted when in normal operation, and a red lamp is lighted while rewinding. If the machine is not operating as intended, both lamps are lighted. As used on the Santa Fe, the programs are available for listening from 8 a.m. to midnight every day while a train is on the road.

The radio receiving set in each lounge car is crystal controlled and pretuned and is extremely sensitive, giving 3 volts automatic volume control on 5 microvolts input. This permits enjoyable listening on rather weak incoming signals.

The loud-speakers in the lounge cars, dining cars and coaches are the permanent magnet, high-fidelity, 8-in. cone type made by Jensen. Each speaker is in a base-reflex cabinet made of ¾-in. laminated wood which is mounted flush in the ceiling of the car and covered with a grill, thus having an outward appearance similar to a ventilator. In order to develop uniform sound distribution, the speakers are spaced about 7 ft. to 12 ft. apart, and are staggered on alternate sides of the car. The speakers in the rooms of room cars are the same type mentioned above, the only difference being that the cabinets are smaller.

The 117-volt, 60-cycle a.c. power for operating the sound equipment is produced by small Eicor rotary converters which are fed from the 32-volt car lighting batteries on the individual cars. The

output of each converter is rated at 300 watts, and two are required to meet the demands on each lounge car.

Connections Between Cars

The train-line cable for transmitting the programs from the lounge car to the coaches and room cars consists of six pairs of wires, one being used for control and four for programs, with one reserved as a spare. These wires are No. 16 flexible copper. Each conductor is individually insulated with polyethylene, each pair is surrounded by a braided copper shield; and the whole cable has a vinylite jacket. The cable is run in 1½-in. steel conduit in the ceiling of the cars. Standard trainline connectors at the ends of the cars are used to extend the circuits through the entire train. This construction permits changes in the make-up of trains.

The antenna for receiving broadcast radio programs is located on the lounge car. This is a T-type antenna, made by the American Phenolic Corporation, and

is 70 ft. long and 14 in. above the roof of the car. At the center of the antenna a connection is made by means of a transformer to an Amphenol 52-ohm coaxial cable which extends about 25 ft. to the radio receiving set in the car.

The sound-distribution and radio receiving equipment on the older cars is sheltered in sheet-metal cases inside compartments formerly used as lockers and storage space. In the newer cars, however, space is allowed especially for the equipment, and mounting racks are installed when the cars are built. This is true also with regard to the installation of the loud-speakers in the ceilings of the cars. All sound-distribution and radio receiving equipment is shock-mounted to minimize vibration.

The installation of this passenger program distribution system is being carried out under the direction of G. H. Minchin, vice-president of the Santa Fe, and under the supervision of J. A. Parkinson, superintendent of communications, and L. R. Thomas, electronics engineer.

Diesel Locomotives on Pikes Peak

(Continued from page 52)

field resistor is automatically controlled by the engine speed switch.

The power equipment consists of two Cummins flat-mounted Diesel engines with a maximum horsepower rating, at sea level, of 275 hp. each. However, at the 6,500-ft. elevation of the Manitou terminal, each engine develops 225 hp. while at the summit each delivers approximately 190 hp. Each engine is started by a push button which applies battery power to a starting motor.

Electric braking equipment includes regenerative braking from the traction motors with dissipation through air-cooled resistors located in the loco-

motive cab. This type of braking will permit the train to make the descent from the summit in one hour and fifteen minutes. There is also conventional air-brake equipment and a hand brake located at the operator's station.

Conforming to the train design, the locomotive cab has windows of shatter-proof glass on both sides and ends. Three access doors are provided, one on each side of the cab and one at the end next to the observation car. The locomotive has one control station placed at the right side facing uphill in the end opposite to the observation car. Grouped at this station are the controller, air brake valve, bell and whistle controls, engine start switches, radiator shutter control, instruments and gages and snap switches controlling cab and train lights.

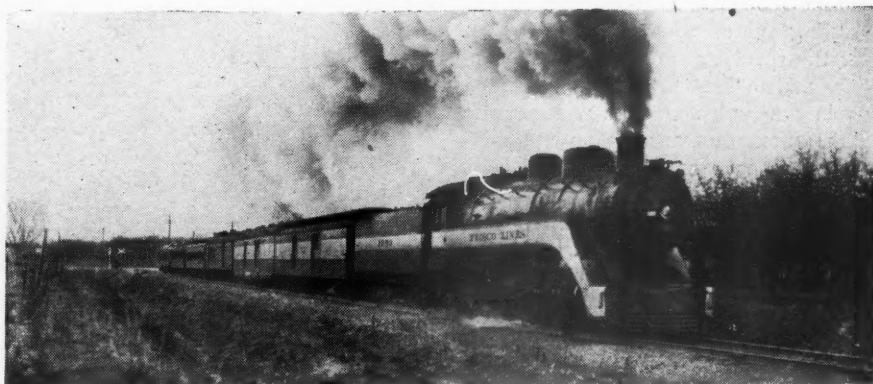


Photo courtesy of R. H. Kindig

St. Louis-San Francisco's "Twin Meteor" near Jones, Okla.

Air Transport Report

(Continued from page 54)

states should also participate. "The position of the certificated air lines in advocating concentration of regulation, both intrastate and interstate, in the C.A.B.," the report said, "is explained by considerations which are understandable from their viewpoint. They desire to prevent entry into the field of air transport of new carriers, particularly surface carriers; they desire also to avoid the expense incident to state regulation; and they fear that state regulation

by legislative agencies which have jurisdiction also over other forms of transportation might tend ultimately to influence congressional action to combine all federal transport regulation in one administrative agency."

As to the general outlook, the subcommittee foresaw that, perhaps within the next decade, America will be faced with a huge oversupply of transportation." Thus it warned that there should be "an immediate reexamination of the entire transportation problem, and determination of ways and means to place transportation as a whole on a sound basis."



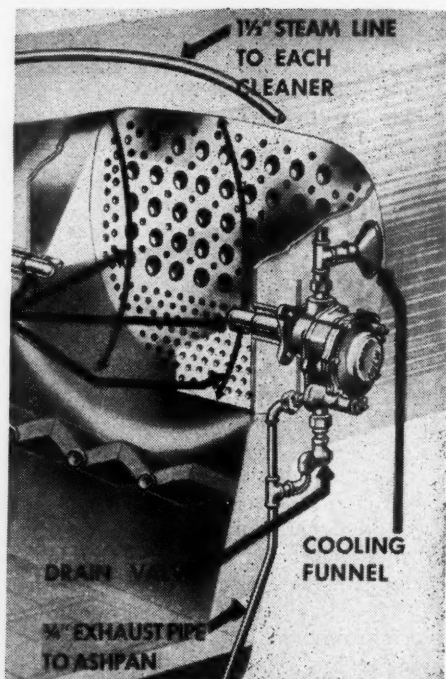
The Salsbury Turretter with hydraulic skid

The Salsbury Turretter

Salsbury Motors, Inc. (a subsidiary of Northrop Aircraft, Inc.), Pomona, Cal., has announced a new line of materials-handling power trucks operated by a swiveling turret power unit, patterned after the revolving gun-mounts of warplanes and tanks. The turret incorporates in one unit the engine, automatic clutch, automatic transmission and driving wheel, an arrangement which is said to simplify steering and reversing. The unit can make sharp turns and moves easily in cramped areas. An articulated coupling permits the truck to travel easily over uneven ground. Maximum speed is eight miles an hour. A hydraulic skid picks up the load and sets it down at its destination. Three types of trucks, for as many materials moving needs, are now available.



The flue cleaner is used every 30 minutes during the run, at the start and finish of the run, and when the fire is knocked or cleaned



The sweeps of the right and the left flue cleaners overlap in the middle of the flue sheet to give additional cleaning action where the heaviest accumulation of soot, slag and honeycomb occurs

Flue Cleaner

The Prime flue cleaner is designed to increase locomotive efficiency by sweeping the entire flue sheet with a powerful blast of steam which cleans the back flue sheet, the superheater tubes, flues and combustion chamber of soot, slag and honeycomb. The cleaner makes it unnecessary to kill fires and to take the locomotive out of service between boiler wash periods to clean flues.

The necessary equipment consists of two blowers, one mounted on each side of the firebox, a pneumatically operated duplex steam valve, and a rotary-type operating valve. The operating valve is located on the fireman's side of the cab. When the operating lever is moved to the right, the right-hand flue cleaner functions; and when moved to the left, the left-hand flue cleaner operates.

The cleaners operate alternately; the right cleaner is at rest while the left cleaner is working, and vice-versa. Each flue cleaner sweeps steam in an arc that covers approximately 60 per cent of the area of the back flue sheet. Thus the nozzles of the right and left cleaner cover 100 per cent of the flue sheet area, and overlap in the center where the accumulation of soot, slag and honeycomb is most serious.

According to the manufacturer, the Prime Manufacturing Company, 1669 South First street, Milwaukee 4, Wis., the flue cleaners should be operated for a minimum of two minutes for the most efficient service.

GENERAL NEWS

Scans Transport's Demands for Fuel

I.C.C. bureau reports on requirements and supplies, with emphasis on petroleum

The Interstate Commerce Commission has made public a study of "Postwar Levels of Demand for Transportation Fuels Compared with Reserves," which was made in its Bureau of Transport Economics and Statistics. The study, a document of 167 mimeographed sheets, is Statement No. 4718 of the bureau, and it carries the usual disclaimer to the effect that it was issued "as information," not having been "considered or adopted" by the commission.

As the preface by Bureau Director W. H. S. Stevens explains, the study deals with the demand for and supply of fuels for the various agencies of domestic transportation. "In view of the continuing shift of rail motive power from coal to oil as well as potential increases in the demands for fuel for motor vehicle and air transportation, it seemed appropriate to make some analysis of the transportation demand for fuels as well as to give special emphasis to petroleum," Dr. Stevens also said. The study was prepared, under the direction of the bureau's head transport economist, Spurgeon Bell, by L. E. Peabody, principal transport economist, and Julian Duncan, transport economist.

It deals mainly with the postwar years of 1947 and 1948, and estimates that the Diesel fuel consumption of the railroads will be 580 million gallons this year and 668 million gallons in 1948. Preliminary data available when the report was being prepared indicated that the 1946 consumption was 523 million gallons, whereas the comparable figure for 1929 was only one-half million gallons.

Three Income Levels—The forecasts as to the consumption of coal and oil by steam locomotives are made on the basis of three assumed levels of national income as follows: Estimate A, indicating the "highest economic levels and maximum national income"; estimate B, indicating an "intermediate level"; and estimate C, described as a "pessimistic projection." The assumed levels of 1947 and 1948 national income on the three bases are as follows: 1947, \$178.4 billion, \$166.3 billion, and \$149.8 billion; 1948, \$189.1 billion, \$175.6 billion, and \$153.6 billion.

Depending upon which of the foregoing is realized, the coal consumption by railroads for each of the two years is estimated at from 106 to 116 million tons. These estimates are compared with the "peak war

A. A. R. Annual Meeting at Chicago November 21

The Annual meeting of member roads of the Association of American Railroads will be held at Chicago on November 21. It will be preceded on November 20 by a meeting of the association's board of directors.

consumption" of 122.9 million tons in 1943 and with the 1929 consumption of 115.5 million tons. On the same bases, oil to be burned in steam locomotives in 1947 and 1948 is estimated at from 3.95 to 4.21 billion gallons. The peak war consumption of oil by steam locomotives was 4.51 billion gallons in 1944, while the 1929 consumption was 2.63 billion gallons.

Meanwhile, the report had noted how steam locomotives using either coal or oil as fuel "have been steadily declining in number for many years." On the basis of 1929 as 100, the 1945 index figure for all steam locomotives in service was put at 68. Comparable 1945 index figures for coal-burning and oil-burning steam locomotives were given as 65 and 91, respectively.

The total consumption of petroleum products by railroads was found to have increased about 172 per cent since 1932, the major factor having been the 961 per cent rise in consumption by Diesel locomotives. The increased consumption by oil-burning steam locomotives was 156 per cent; but the consumption of gasoline, "used mainly by rail motor cars either in freight yards or on short local runs," decreased 34 per cent.

Use 12 Per Cent of Oil—"The outlook," the report continued, "is for continued growth in the use of Diesels. If the coal turbine proves successful it will supplement, perhaps might tend to replace, the Diesel in line-haul service where coal supplies are relatively low-priced. However, it will require considerable time for the coal turbine to prove itself in service."

In addition to its consideration of fuel consumption by railroads, the report has chapters on fuel used by other transportation agencies—air, highway and water. Using Department of Interior figures of domestic consumption of petroleum, it calculates that the ratio of consumption by the transportation agencies to total domestic consumption of petroleum (excluding consumption by the armed forces) would be from 45.5 to 48 per cent in 1947, and 47.6 per cent to 51.4 per cent in 1948.

"These data," the report continued, "indicate that more than one-half of all domestic petroleum consumption in 1947 and

(Continued on page 64)

Would End Forwarder Pacts with Truckers

I.C.C. examiners recommend that joint-rate arrangements be condemned

Examiners Paul O. Carter and J. J. Williams have recommended in a proposed report that the Interstate Commerce Commission reaffirm its previous condemnations of joint-rate arrangements between freight forwarders and motor carriers and thus require the forwarders to pay published tariff rates of the truckers for so-called assembling and distribution services. In the latter connection, however, the examiners would have the commission allow the truckers to maintain assembling and distribution rates lower than their rates on traffic generally, "provided such lower compensation is justified by reason of the conditions under which the services and instrumentalities of such motor carriers are utilized by freight forwarders and the character of the services performed by such motor carriers and by freight forwarders."

The proposed report, occupying 136 mimeographed pages, is in the commission's No. 29493 investigation of agreements between forwarders and motor carriers. The investigation was instituted on March 5, 1946, in compliance with the February 20, 1946, amendment to Part IV of the Interstate Commerce Act. That amendment rewrote section 409 to direct the commission to determine a permanent policy with respect to forwarder-trucker relationships, meanwhile permitting continuance of the joint-rate arrangements until the commission makes such a determination.

Put Off by Congress—Previously the joint-rate arrangements had been condemned by the commission in the *Acme* case; and section 409, as originally enacted in May, 1942, pronounced a "death sentence" on them. However, there were various reprieves by congressional action until the extension was put on an until-the-commission-acts basis by the February 20, 1946, amendment.

The original provisions contemplated that the joint-rate arrangements would be supplanted by assembling and distribution rates published by the truckers pursuant to Part IV's section 408. That is what the examiners now recommend, even though the February 20, 1946, amendment was broad enough to authorize the commission to sanction the joint rates or propose some other arrangement. The former was favored by the forwarders generally, but opposed by other parties, including American Trucking

Associations, Inc., and the National Industrial Traffic League.

"Section 409," the proposed report said, "does not contain a mandate that the present joint rates shall continue permanently, and no presumption or requirement of a finding that joint rates are the appropriate method for providing charges for the services furnished by motor carriers to the forwarders." It added that the commission's discretionary authority under the amended section "extends to requiring that the rates, charges, terms, and conditions on which freight forwarders use the services of motor carriers shall be stated and published in tariff form."

See Discrimination — The examiners' "careful consideration of the record" made it "clear" to them that the joint-rate method "is unlawful in that it results in discrimination in favor of forwarders and against other shippers who use the service of motor carriers under like conditions and circumstances, and against smaller forwarders, which because of the limited amount of traffic they handle, are unable to obtain as low a basis of compensation as the larger forwarders."

The failure to offer a single forwarder-trucker agreement in evidence, though "thousands of such agreements are said to be in effect," prompted the examiners to observe that the record left the "strong inference" that many of the agreements are oral or evidenced only by letters confirming the basis of compensation agreed upon. "The making of agreements between common carriers and shippers as to the charges to be collected and paid is repugnant to the act and gives rise to various kinds of discrimination and favoritism," the

report added. Later on, it referred to contentions that the truckers' failure to publish many assembling and distribution rates had been due to their reluctance to extend the lower charges to other shippers who utilize their services in substantially the same manner as the forwarders.

"While that might have been one of the reasons, it is a fair inference that a stronger reason was the continued authorization of joint rates and divisions," the report continued. "As long as joint rates and divisions were permitted to remain it was futile to supplant them with assembly and distribution rates as authorized in section 408. The forwarders were able to use their great bargaining power with individual motor carriers to persuade them to agree to the divisional basis, and with competition for the forwarder business keen among motor carriers, insistence on the application of published assembly and distribution rates would have meant the loss of the traffic to a competitor."

Uniformity Urged—"The elimination and abandonment of the joint rates and divisions method, and the substitution of the method under section 408, will result in uniform compensation for motor carriers handling forwarder traffic between the same points and the payment of uniform compensation by forwarders operating between the same points, whether they be large or small. It will also permit shippers generally whose traffic is handled by motor carriers under conditions similar to those under which forwarder traffic is handled to share in the benefits of the savings that may result from such handling."

Cost evidence was summarized in the report as having indicated that the truckers'

average 1946 costs of performing assembling and distribution services exceeded the average compensation paid by forwarders in all territories except the central states. Moreover, from testimony dealing with "alleged savings" in the handling of forwarder traffic as compared with traffic generally, "it clearly appears that in many instances there is no substantial saving, in some instances there is some saving of the expense in some of the elements of service, particularly where the volume of forwarder traffic is large and regular, . . . and in other instances the expense is as great or greater than on other traffic."

Meanwhile, the examiners had conceded the desirability of extending forwarder operations to smaller communities by the coordinated use of motor-carrier services; but they added: "Extension of the scope of forwarder service should be limited, however, if such extension is obtained by artificial stimulus such as inadequate compensation to the motor carrier. Carrier discounts below published rates cannot be given by railroads because the forwarder must pay the railroad the same published tariff rates that would be paid for the same movement by other shippers. No sound reason appears for a different relation between the forwarder and the motor carrier."

Weil Elected Secretary of Coordinated Committee

At a meeting of the Committee of the Coordinated Associations held at the Hotel Sherman, Chicago, during the conventions of the five Coordinated Associations and the exhibit of the Allied Railway Supply Association, September 15-18, T. Duff Smith, secretary of the Railway Fuel and Traveling Engineers' Association, who has also been secretary of the committee since its organization, resigned from the latter position. After a vote of thanks to Mr. Smith for his work, the committee elected C. F. Weil, past president and secretary during 1946-47 of the Allied Railway Supply Association, as its secretary. F. P. Roesch will continue to serve as chairman.

Visitors to "Train of Tomorrow" Approach a Million

After a tour of cities in the eastern half of the United States during the summer months, the General Motors Train of Tomorrow is on exhibit at New York, where it arrived on September 29 from Boston. During a part of the trip to New York General Motors was host to a press party. The train will be open for public inspection at New York during the last part of this week and the first of next week.

Following its christening at Chicago on May 28, the train has been on public display at the following cities: Chicago; Detroit, Mich.; Toledo, Ohio; Pittsburgh, Pa.; Washington, D.C.; Atlantic City, N.J.; Baltimore, Md.; Richmond, Va.; Atlanta, Ga.; Charleston, S.C.; Jacksonville, Fla.; Nashville, Tenn.; Louisville, Ky.; Cincinnati, Ohio; Dayton, Ohio; Indianapolis, Ind.; Cleveland, Ohio; Buffalo, N.Y.; Toronto, Ont.; Albany, N.Y.; Boston, Mass., and now New York. Up to the close of its public appearance at Boston,

The Genesis of the Timetable

The world's first railway timetable was produced by George Bradshaw in September, 1839. This publication was the embryo out of which sprang timetables all over the globe, and it is no exaggeration to state that Bradshaw's first timetable, published in London, England, ever will rank as the most important railway volume to be produced. . . .

At the time when Bradshaw first became interested in the idea of a railway timetable, it was the custom of the various local railroads which had then sprung up in Britain to advertise the times of their trains in the newspapers serving their particular areas. It became obvious to Bradshaw that this was not an ideal arrangement for travelers, who needed some sort of guide they could slip into their pockets for ready reference. Out of this idea came . . . "Bradshaw's Railway Time Tables and Assistant to Railway Traveling." It was a slim volume in a green cloth cover 3 in. by 4½ in., and it contained timetables of the Liverpool & Manchester; Manchester & Littleborough; York to Leeds and Selby; North Union; and Manchester & Bolton railways; as well as maps of the railroads in Lancashire and

Yorkshire and town plans of Liverpool, Manchester and Leeds. . . .

When "Bradshaw" first appeared, railways were in their infancy, the electric telegraph had not been perfected, and universal time did not exist. The various local railroads in Britain each favored their own particular method of train timing, the larger lines frequently making alterations to train running at any moment that suited their needs, without prior consultation with the smaller connecting systems. Bradshaw gradually got most of the bigger railroads to work together in timetable compilation, but it was not until long after his death in 1853 that the railways as a whole agreed to adopt a standard system for announcing alterations in their train services, and to furnish "Bradshaw" with details of all changes not later than the 15th of the month preceding issue of the timetables. Through the years, "Bradshaw" developed alongside the British railroad systems, and his method of timetable production was copied all over the world. "Bradshaw's Railway Guide" is still going strong, being published by Henry Blacklock & Co., of London and Manchester, England, monthly.

—Arthur L. Stead in the *Railway Clerk*.

the train had been inspected by over 854,000 persons and it is estimated that it has been seen by about 3,500,000 who were unable to inspect its interior.

Following the close of the New York exhibit, the train will continue its tour, visiting Philadelphia, Pa.; Omaha, Neb.; Lincoln, Neb.; Denver, Colo.; Salt Lake City, Utah; Oakland, Calif.; Portland, Ore.; Seattle, Wash.; San Francisco, Calif.; Los Angeles, Calif.; Albuquerque, N.M.; Kansas City, Mo., and the Twin Cities—Minneapolis, Minn., and St. Paul. It will then visit points in Texas. Present plans extend only as far as New Orleans, La.

Canadian Rate Case Reopened

The prolonged proceedings dealing with the application of the Canadian railroads for authority to make general increases in their freight rates, which have been suspended since mid-August, were resumed last week, when the Board of Transport Commissioners, sitting at Ottawa, heard the final rebuttal testimony of the carriers.

The tentative schedule of the case allots some two weeks to this rebuttal. It is expected that argument, which will take about a month, will then follow a short recess. Objection to the increase has been offered by seven Canadian provinces, while Ontario and Quebec have taken no part in the proceedings. While certain rate increases have been announced by the railroads since the Canadian price control regulations affecting them were recently lifted, they are not general in scope, and no general increases can be effected until the transport commissioners' approval is received.

Symes Addresses Allegheny Shippers Board

The fifty-seventh regular meeting of the Allegheny Regional Advisory Board was held in Canton, Ohio, on September 25. The principal speaker was J. M. Symes, vice-president in charge of operation of the Pennsylvania, whose subject was "The Big Squeeze."

The report of the Legislative committee by Dr. Sidney L. Miller, professor of transportation of the University of Pittsburgh, referred to bills which will come before Congress when it goes in session. The board, while still reiterating its position as opposed to the Crosser Act, went on record as favoring H.R.3150, a bill introduced by Mr. Howell of Illinois to amend the Railroad Unemployment Insurance Act. The board voted its disapproval to S.72, a bill which provides for a uniform classification to be applied throughout the entire United States, also a uniform class rate scale for similar broad application. W. E. Callahan, manager, open top section, Car Service Division, Association of American Railroads, discussed the national transportation situation, particularly the freight car shortage. J. N. Lind, traffic manager, Spang Chalfant, Ambridge, Pa., presided at the Car Efficiency Committee meeting. Car supply, transportation service, loading of overhead trap cars, and dirty cars were subjects highlighted in the discussion.

Giving the figures for the Pennsylvania for illustration, Mr. Symes explained that the "big squeeze" to which the title of his address referred was the \$200 million by which the increase in that road's expenses since 1940 have exceeded the increase in its revenues. And that is not all, he added. In addition, the railroads are not able under present conditions to do much about catching up on the deferred maintenance that accumulated during the war, "amounting in our case to something like \$100,000,000. We did have available money to take care of the accumulated maintenance during the war; but, of course, the labor and material situation prevailing at the time prevented spending it. So, instead of being permitted to put some of this money away for the rainy day, which is now here, that money was drained away from us in special wartime taxes, and is no longer available to do the things that ought to have been done during the war, or after the war with war-saved money."

The railroad industry is in a "bad fix" as a result of this "big squeeze," Mr. Symes told his audience of shippers, "and whether you know it or not, and whether you like it or not, unless this thing corrects itself soon, you are going to find your own industries in the same kind of shape. The railroad industry just happens to be at the top of the batting order. You simply cannot have in the railroad industry, or in any other industry for that matter, inflation on the cost side of the ledger unless you offset it on the price side of the ledger. You all know what we in the railroad industry are attempting to do to correct the plight in which we find ourselves, and I cannot help but ask that you lend us your understanding support in that situation."

Referring to the car shortage, the speaker remarked that the Allegheny territory has "suffered tremendously so far as car supply is concerned, and I want to say that you have been extremely patient and exceedingly cooperative in combating this unsatisfactory situation."

"I sometimes think that a few more squeaks in the right places might obtain a little more oil, because certainly I believe the organized squeaks coming out of the West have caused what I term 'over-enthusiasm' on the part of those issuing car directives to deprive us in the East of a more adequate car supply. I have so testified before the Interstate Commerce Commission and before congressional committees, calling their attention to the 'merry-go-round' movement of box cars moving from the West to the South loaded, from the South to the East loaded, and then from the East empty back to the West in order to begin another 'merry-go-round' movement at the expense of Eastern railroads and Eastern shippers. . . ."

"Railroad transportation in America is the best in the world and gives the public the most for its money. To foster the progress of the industry is directly in the public interest. Really all that is necessary is for the public and the public authorities to face the facts with courage and in the spirit of justice, so that the industry receives sufficient revenue to live and go forward. The whole railroad problem is as simple as that. It is as simple as the

problem of making ends meet in your own household—but, unfortunately, so many are trying to complicate it. Let us hope that the plain, straightforward viewpoint in meeting this problem will prevail."

"Gold Coast" Replaces Last "Challenger" Train

The "Gold Coast," a through daily train operating between Chicago and San Francisco, Cal., over the Chicago & North Western, Union Pacific and Southern Pacific, replaced the "San Francisco Challenger" on October 1 and marked the end of tourist car operation on the "Overland Route." The "Gold Coast" operates on the schedule of its predecessor train and is made up with coaches, standard sleeping cars and dining and lounge equipment. The San Francisco to Washington, (D.C.) transcontinental sleepers, operated in conjunction with the Pennsylvania and Baltimore & Ohio, are operated on the new train both east and westbound, instead of on the "Pacific," as heretofore.

Says End of Bumper Crops May Leave Freight Car Surplus

A seven-year cycle of unprecedented large crops which "cannot be expected to continue indefinitely" is an important consideration in determining the number of freight cars that the railroads should build, L. R. Capron, vice-president of the Chicago, Burlington & Quincy, told members of the Pacific Northwest Advisory Board at a meeting on September 26 at Spokane, Wash. He said the railroads might again be criticized, as they were in the 1930's, for having been allowed to increase their capacity far beyond traffic needs.

The speaker declared that, despite the shortage in car supply, there has been no breakdown in railroad transportation and that it is debatable whether the car shortage is "a case of the breeches being too small for the boy or the boy being too big for the breeches." To insure itself of adequate railroad transportation, Mr. Capron asserted that the public must insist that the industry be rid of such difficulties and uncertainties as the governmental practice of subsidizing its competitors, using the railroads for expensive sociological experiments such as the Crosser Act, onerous taxation and denial of the opportunity to earn a fair return on a fair valuation.

L. M. Betts, manager, railroad relations of the Car Service Division, Association of American Railroads, told the shippers that the stoppage of freight car export should result in better domestic deliveries. Such exports, he said, was 44 per cent of the total production during the first eight months of 1947.

Operating Employees Serve 30 Per Cent Wage Hike Demand

The five transportation brotherhoods, representing some 350,000 railroad operating employees, served formal notice of their demand for a 30 per cent wage increase on the nation's individual railroads on September 30. A minimum of \$3 on the basic "day" and application of the percentage increase to all arbitraries, special al-

lowances, and to daily and monthly guarantees, is included in their demand, which they ask to be made effective on November 1.

It is estimated that the increase sought, if granted in full, would cost the railroads \$400,000,000 annually.

The railroads have named a carriers' wage conference committee to handle the demand with the operating brotherhoods. Chairmen of the three regional committees which compose the national committee are H. A. Enochs, chairman, executive committee, Bureau of Information of the Eastern Railways, J. B. Parrish, chairman, executive committee, Bureau of Information of the Southeastern Railways and vice president, operations, Chesapeake & Ohio, and D. P. Loomis, executive director, Association of Western Railways.

The \$400,000,000 wage demand of the "ops" is separate, and in addition to, the pending million dollar rule-change demands, and follows closely after the recent award of 15½ cents hourly granted to the non-operating employees by an arbitration board, and estimated to cost the roads \$438,000,000 annually.

Negotiations between union and carrier representatives on the rules will begin in Chicago on October 7.

Railway Track-Scale Testing Program Intensified

The Bureau of Standards' program for testing railway master track scales has been restored to "normal operating levels" in new schedules drawn up for 1947-48, after having been "severely curtailed" since 1943, according to an announcement in the latest issue of the bureau's Technical News Bulletin. The expanded program has been made possible by the return to service of a reconditioned test car which has been out of operation for five years during which only one car was available.

One of the cars has been assigned first to the New England area, while the second was scheduled to begin operations in the west during the latter part of last month. As the bulletin explained, the bureau, through agreement with the Association of American Railroads is responsible for the calibration and adjustment of the 19 master track scales in the country. Important secondary and commercial scales on or near the routes between the master scales are also calibrated.

Representation of Employees

The Brotherhood of Railroad Trainmen has extended its coverage of Central Vermont yardmen to include yard foremen, formerly represented by the Order of Railway Conductors of America. The B. of R. T. previously represented helpers and switchtenders, and its broader coverage was certified by the National Mediation Board on the basis of a check of representation authorizations, the O. of R. C. having meanwhile advised that it recognized the right of the B. of R. T. to represent the employees involved.

As a result of other checks of representation authorizations, the B. of R. T. has been certified to represent Brooklyn Eastern District Terminal yardmasters, who formerly were without representa-

tion, and the United Steelworkers of America, Congress of Industrial Organizations, has been certified to represent the entire craft or class of maintenance of way employees, including foremen in the track and bridge and building departments, of the Union. The foremen formerly were without representation while other maintenance of way employees were already represented by the C.I.O. union.

More Army Rail Units

Four additional reserve units of the Military Railway Service are among those contemplated by agreements which the Army has signed recently. They are the 705th Transportation Railway Grand Division and the 754th and 744th operating battalions, all sponsored by the Southern Pacific; and the 728th operating battalion sponsored by the Louisville & Nashville.

Equipment Depreciation Rates

Equipment depreciation rates for the Detroit & Mackinac and the Toledo, Peoria & Western have been prescribed by the Interstate Commerce Commission in a new series of sub-orders modifying previous sub-orders in the general proceeding, entitled Depreciation Rates for Equipment of Steam Railroad Companies.

The rates prescribed for the D.&M. are: Steam locomotives, 2.38 per cent; other locomotives, 3.89 per cent; freight-train cars, 5.25 per cent; passenger-train cars, 5.07 per cent; work equipment, 10.41 per cent; miscellaneous equipment, 9.43 per cent. The T. P. & W. rates are: Steam locomotives, 3.79 per cent; freight-train cars, 5.64 per cent; work equipment, 5.3 per cent; miscellaneous equipment, 10.02 per cent.

Another Effort to Distinguish Private Trucking

Another investigation involving the distinction between private and for-hire trucking has been instituted by the Interstate Commerce Commission. It is an inquiry, docketed as No. MC-C-906, into the motor carrier operations of the Burlington Mills Corporation and its subsidiaries and affiliates.

The order stated that "there is reason to believe" that the respondents "may be engaged in the transportation of property, in interstate or foreign commerce, for compensation, as common or contract carriers by motor vehicle subject to the provisions of Part II" of the Interstate Commerce Act.

Hearing on L. C. L. Rates

Hearings on the petition filed by Official-Territory roads for authority to increase rates on l.c.l. and any-quantity traffic to what they regard as a compensatory level, will be resumed at the Washington, D. C., offices of the Interstate Commerce Commission starting October 28. Division 2, assisted by Examiner Walsh, will preside.

As reported in *Railway Age* of September 27, page 71, previous sessions of the hearings in the proceeding, Docket No. 29770, were held during the week ended

September 26. Fred Carpi, assistant general traffic manager of the Pennsylvania, was the principal witness for the railroads.

Southwest Shippers Advisory Board Meeting

Over 400 shippers, receivers and railroad representatives attended the 76th regular meeting of the Southwest Shippers Advisory Board at Little Rock, Ark., September 25-26. During the two-day meeting all phases of car handling and the necessity for compliance with car service rules were discussed. Among the subjects on the agenda were the general car situation and the improved handling of cars both on the road and in terminals, switching, car efficiency and the need for prompt handling in unloading and loading. The principal speaker was Col. J. Monroe Johnson, director of the Office of Defense Transportation.

The board's next meeting is scheduled for March, 1948, in Corpus Christi, Tex.

Begin Helicopter Service for Air Mail

Regularly scheduled helicopter air-mail delivery was inaugurated in the Los Angeles, Cal., area on October 1, Postmaster General Hannegan announced on that date, which, he noted, marked the first anniversary of the 5-cent air-mail rate. The helicopter service is between the main post office in Los Angeles and nine surrounding communities where experimental operations were conducted early this year. The Hannegan announcement also said that the service would soon be extended to nine additional communities in the same area.

Huntress Heads St. Lawrence Project Conference

Carroll B. Huntress of New York was recently elected president of the St. Lawrence Project Conference which has functioned for several years as an association of opponents to the proposed St. Lawrence seaway and power project. Legislation to approve the U. S.-Canada agreement for proceeding with the project is pending in Congress, where it has been approved by the Senate committee on foreign relations.

Scans Transport's Demands for Fuel

(Continued from page 61)

1948 is expected to be in transportation, including the consumption of the armed forces. Passenger automobiles account for about 47 per cent of the consumption, trucks rank next with 17 per cent, and railway consumption is third with 12 per cent. Total highway vehicle consumption is estimated at more than five times that of railway consumption, and these two agencies together account for about three-fourths (76 per cent) of total domestic consumption. Shipping is next with about 8 per cent on the minimum estimate. The estimated consumption by the armed forces

in a peacetime year would amount to approximately 8 per cent of domestic consumption. Civil aviation and non-highway use make up the remainder."

The report's discussion of the country's coal reserves stated that they can supply the demand "for at least 1,000 years at the maximum consumption rate so far attained (1944) for the traditional uses of coal, plus coal used in the production of synthetic high B.T.U. gas at the 1943 rate of natural gas consumption, plus coal for synthetic production of liquid fuel products at the estimated 1961-1965 rate of consumption." As to the oil supply, however, it was found that North America "is using, and probably will continue to use, its petroleum resources at a higher rate when compared with reserves than any other continent having significant production."

Supplies Getting Low—The study's analysis of imports and exports showed that this country "is no longer a net exporter of petroleum," while estimates of foreign productive capacity in 1947 indicated that it is "only slightly in excess" of estimated foreign demand. "Estimated foreign demand," the report added, "is expected to exceed estimated foreign production in 1951."

This means that it is not likely that possible domestic deficiencies (net) can be fully met from importations in the period up to 1951."

Previously it had been stated that the annual U. S. consumption of domestic crudes is now "substantially greater" than additions to domestic reserves. Thus it was reasoned that the country "must continue to be a net importer of petroleum unless (1) the rate of discovery is accelerated, (2) petroleum products are made from coal, (3) the amount of U. S. proved reserves is permitted to decline, or (4) the efficiency of internal-combustion motors is markedly increased."

The crude petroleum price outlook, up to 1951, assuming no changes in the tariff, is for a "continued moderate increase relative to the movement of all wholesale prices," the report said. It added that the trend of domestic prices in the period 1952-1965, as compared with other prices, again "assuming no change in the tariff," is "likely to be upward."

Synthesis From Coal—"The more rapid the rise in the price of crude petroleum, the sooner there will be commercial synthesis of petroleum products from coal,"

the report continued. "It is possible that the growth of a domestic synthetic liquid and a gaseous fuel industry might result in a reversal of the upward price trend within a ten-year period. . . . The price of heavy fuel oil will probably rise more rapidly than that of crude petroleum or gasoline because of technological changes which will make it feasible to extract a higher percentage of the more profitable gasoline and lighter fuel oils from crude."

With respect to the general outlook for coal, the report questioned estimates of economists in the coal industry who have predicted that coal demand will pass its peak in 1947. "Current and prospective foreign demand for U. S. coal renders these forecasts less tenable," it said. "Current demand as related to current supply is probably sufficient to permit coal operators to pass the increase in costs of July, 1947, wage increases to coal consumers. The amount of coal which it is estimated would be required for sustained full employment is approximately equal to present productive capacity. Without the present foreign demand, it is possible that the coal producers would not be able to pass on to consumers the recent increased labor costs."

* * *



New C. & O. ticket office at 11 West 49th st., in Rockefeller Center, New York City, opened September 18. Done in modernistic style dioramic scenes of the country along the C. & O. route and of the new "Chessie" supply pleasant background to the prospective traveler

Let Single Agency Decide Both Rates and Wages—Neff

The entire responsibility respecting both wages and rates of the railroads should be vested in one body, or "else there should be a mandatory provision in the Transportation Act requiring that any wage increase shall be automatically followed by the necessary off-setting rate increase so as to at all times enable the carriers to have a fairly uniform return on their invested capital," P. J. Neff, chief executive officer of the Missouri Pacific, declared in Chicago this week. Mr. Neff spoke at the luncheon session of the Association of Interstate Commerce Commission Practitioners' 18th annual meeting, held at the Edgewater Beach hotel on September 28 to 30, inclusive. In the course of his remarks, he paid tribute to Clyde B. Aitchison, chairman of the Interstate Commerce Commission, who was honored at the association's luncheon session in connection with his 30th year as a member of the commission.

Mr. Neff criticized the present procedure whereby one governmental body grants a wage increase, forcing the carriers to ask a different agency of the government for a corresponding rate increase. "Under the present law, there is an inescapable loss of time and irrecoverable expense on the part of the railroads in the gap between retroactive wage increases and prospective rate increases," he declared.

"Most industries which have had expenses increased immediately follow with an increase in the price of their products but, under the divided authority laws of this country, the railroad industry is not so fortunately placed," the M. P. head continued. "With all reasonable speed, it took the railroads a full year to get relief from the wage awards of 1946. Only the continuance of maximum peak-time traffic enabled most of the lines to survive the year without great losses."

Mr. Neff asserted that the "railroad industry today is probably faced with the greatest problem of its existence in converting the public to what seems to us to be a very apparent fact that there must be a liberalization of the treatment of American railroads if they are to continue to be operated as private enterprises." He said that the railroads constitute about eight per cent, or \$16 billion, of the national economy, which, if depressed, "might easily be the atomic bomb which would disrupt the whole economy." He attributed the depression of the 1930's to the inability of the railroads to "get on their feet."

Tribute was also paid to Chairman Aitchison by R. Granville Curry, president of the association, who said, in part: "Soon after entering upon his duties with the commission, his forcefulness, his broad knowledge of precedents, his ability to cut through the immaterial to important issues, his remarkable talent in conducting hearings, and his deep sense of fairness were recognized in the commission and among those practicing before it. His outlook, to use the words of the Supreme Court, has been, and is, 'as comprehensive as the interest of the whole country', and he has aided the commission in exercising its function in 'coldest neutrality'."

Agin' Labor Baiters—The luncheon session was also addressed by John Temple Graves, editor of the Birmingham, (Ala.) Post, who asserted that "we'll break the very neck of the world if we fail to keep American economy a going-and-growing concern. That is why we shudder at politicians who go back to the old game of baiting the railroads of America. It is still an easy way for a politician to win friends, but it is a dangerous game today. The time has passed when a Vanderbilt could say for the railroads 'the public be damned' (if he did), but the day hasn't come when we-the-people can say 'the railroads be damned.' And there are too many flourishing, unregulated monopolies to be opposed without picking on a crippled natural already subject to regulation."

At the association's afternoon session on September 29, Daniel P. Loomis, executive director of the Association of Western Railways, compared the Railway Labor Act with the Taft-Hartley Act, declaring that many provisions of the latter "only pre-empt what has long been accepted in railroad labor relations, either by practice or legislation." He said he did not know how it can be characterized as a "slave labor bill." Also speaking at this session was Robert J. Bayer, editor of Traffic World, who discussed labor and rate regulation and urged that the Railway Labor Act be strengthened "to make decisions of fact-finding boards binding and so as to make awards by arbitrators mandatory for a specified period of time—say a year." He also suggested amending the act "to make the public a party to all railroad labor proceedings that get beyond the negotiation stage, on exactly the same level as the unions and railroad management."

C. & O. Adds Hostesses

Hostess service on Chesapeake & Ohio passenger trains, which had been provided only on the "George Washington," is being extended to other through trains this month, Arthur S. Genet, vice-president—traffic, has announced. Nineteen young women have been in training for the work since September 1. Trains between Newport News, Va., and Cincinnati, Ohio, and between Newport News and Detroit, Mich., will have this service, as will the new streamlined "Chessies" when they begin operation.

C. & E. I. Reopens Houston Office

The Chicago & Eastern Illinois has announced the re-opening of its freight and passenger office in Houston, Tex., at room 1004 Sterling Building, 608 Fannin street, telephone Beacon 3-9583.

Ask Anti-Trust Charges Against RR Officers Be Removed

The dismissal of charges against 69 defendant railroad officers and directors named in the federal government's anti-trust suit against 47 western railroads, two railway associations and some 90 railroad and banking executives is sought in a motion filed in the district court at Lincoln, Neb., on September 29. Counsel for the defending carriers, the Association of

American Railroads and the Western Association of Railway Executives filed the motion along with objections to approximately 500 of the more than 800 exhibits previously introduced by the Anti-trust Division of the Department of Justice. The defendants have been charged, among other things, with maintaining non-competitive rates in the western area and with acting to retard development of competing forms of transportation.

The motion asking dismissal of individual defendants states that "the evidence does not present facts warranting the granting of any relief to the plaintiff as against such individual defendants, even if the corporate railroad defendants were shown to have violated the Sherman Act, which defendants deny." It further declares that the government "does not inform the court where in its 809 exhibits there is evidence which shows the individual defendants to be guilty of such violations of the Sherman Act that they individually must be enjoined to prevent violations in the future."

"If the evidence establishes any violation of the Sherman Act—which we deny—it is clear that such violation may be corrected and the public interest fully served without the presence of the individual defendants," the petition stated. "Moreover, justice and good practice require the dismissal of those parties. There is a clear injustice in compelling the individual defendants to expend the time and money necessary to defend themselves individually in a mass trial."

Lets Allied Acquire Rights of 47 Additional Truckers

Division 4 of the Interstate Commerce Commission has conditionally authorized Allied Van Lines, Inc., to acquire the operating rights held by 47 of its former hauling agents as common carriers of household goods. The report in MC-F-3360 notes that the acquisition arrangements will be the same as those approved by the commission in April, 1946, when it authorized Allied to build nationwide rights for itself by acquiring the rights of more than 300 of its former agents (see *Railway Age* of May 18, 1946, page 1042).

As the present report put it, the 47 agents now involved had failed to "make up their minds" about participating at the time of the previous decision. In acting favorably on the application, the commission rejected the protest of the Department of Justice's Anti-trust Division.

Per Diem Goes to \$2 as Court Action Is Awaited

The per diem rate for rental of freight cars, other than tank and refrigerator cars, went up from \$1.50 to \$2 on October 1, as the courts had up to that time failed to act on railroad petitions for stays of the Interstate Commerce Commission's recent order requiring the increase. As noted in the *Railway Age* of September 27, page 59, the principal appeal to the courts is embodied in the petition filed by some 172 railroads, including 130 intervening short lines, in the United States District Court for the District of Columbia, while a similar petition

of the Long Island is pending in the federal district court at New York.

The temporary stay of the commission's order, which was sought in the petition filed at Washington, D. C., was the subject of hearings last week before a special three-judge court created to consider the case; but no decision was announced before the October 1 effective date of the commission's order. Meanwhile, the court set October 7 as the date for hearing on that phase of the petition which seeks a permanent injunction voiding the order.

In addition to the commission, the Department of Justice and six western railroads—Atchison, Topeka & Santa Fe, Illinois Central, Northern Pacific, Great Northern, Chicago, Burlington & Quincy and Denver & Rio Grande Western—are opposing the petition to set aside the per diem order. Those roads now have pending before the commission a complaint in which they allege that the former per diem rates fixed by the railroads were too low and thus contributed toward the freight car shortage.

During the course of their argument for a temporary injunction, counsel for the petitioning railroads suggested a procedural plan whereby this preliminary phase might be disposed of without haste to meet the October 1 deadline. They suggested that (1) further consideration of the motion for an interlocutory injunction be held in abeyance until November 7; (2) if the motion for a permanent injunction is finally determined by the court before November 7, the motion for an interlocutory injunction need not be acted upon; and (3) if the motion for a permanent injunction is not finally determined before November 7, an interlocutory injunction staying and suspending the commission's order and any and all payments thereunder, pending further order of the court, be issued on November 7, effective October 1, with the consent of all parties to the case and without further hearing.

Such a proposal, it was argued, would preserve the position of the Department of Justice "in the only way consistent with a fair regard" for the petitioners' interest. The department earlier had contended that arrangements for making per diem settlements insure that the petitioning roads will

suffer no injury until actual payments on the October accounts are made by the short lines in November and the Class I roads in December. It suggested that the case can be finally determined before such payments are made.

The petitioners' procedural proposal was opposed by the defendants, principally counsel for the commission, and the court indicated that it would proceed on the basis of the original plea for immediate temporary relief.

Counsel for the commission and the opposing western roads, meanwhile, told the court that, among other things, the \$2 per diem will spur car movements and expedite their return to home roads. They contended that the commission, under Section 1(14) of the Interstate Commerce Act, has the authority to increase the per diem, and they defended the \$2 rate as being "just and reasonable" and not in the nature of a penalty.

Drop New Rule for Applying Ex Parte 162 to Mixed Carloads

Because the railroads had canceled the tariffs involved, Division 2 of the Interstate Commerce Commission issued a September 19 order discontinuing the proceeding which it had instituted to investigate a proposed new rule to govern the application of the Ex Parte 162 freight-rate increases on mixed carloads of two or more commodities moving at a common rate. The proceeding was I. & S. No. 5510, and the tariffs had been suspended from July 21 until February 20, 1948.

Higher Rates O. K. for Special Trains, Baggage Cars

Railroad proposals to increase minimum charges for special trains and special baggage cars have been approved by the Interstate Commerce Commission. The proposals are embodied in tariffs which have been under suspension since February 1, and the commission decision, by Division 3, vacates the suspension, effective October 6. The proceeding was docketed as I. & S. No. 5457.

As described in the report, the new rate scale will effect a general increase of 25

per cent in the minimum charges for the exclusive use of special trains and special baggage cars. The minimum requirement for a special train will be raised from 100 first-class round-trip fares to 125, while the minimum charge for such a train will go up from \$132 to \$165.

The minimum number of first-class passengers for whom a special baggage car will be operated without charge will be increased from 20 to 25. When less than 25 persons are in the party, the minimum number of fares for passengers accompanying a special baggage car will be 12½, plus 12½ fares for the use of the special car. The present requirement in the latter connection is 10 passengers, plus 10 fares. Also, the new scale will increase from 20 to 25 first-class fares the minimum requirement for a special baggage car unaccompanied by passengers; but there will be no change in the present minimum charge of \$33 for the use of a special baggage car.

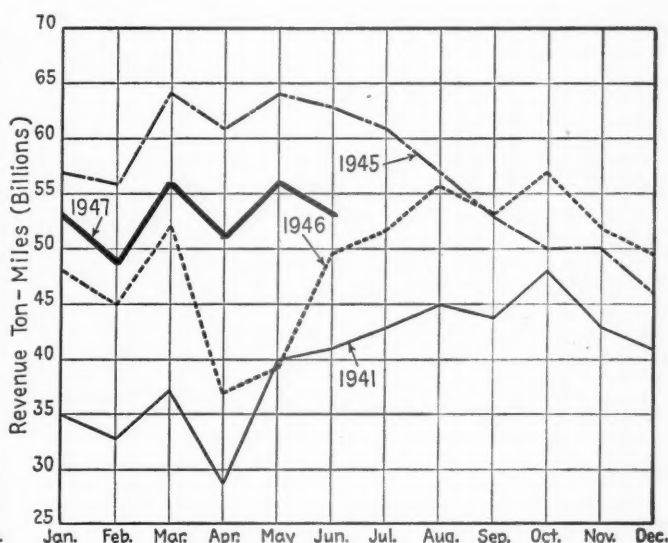
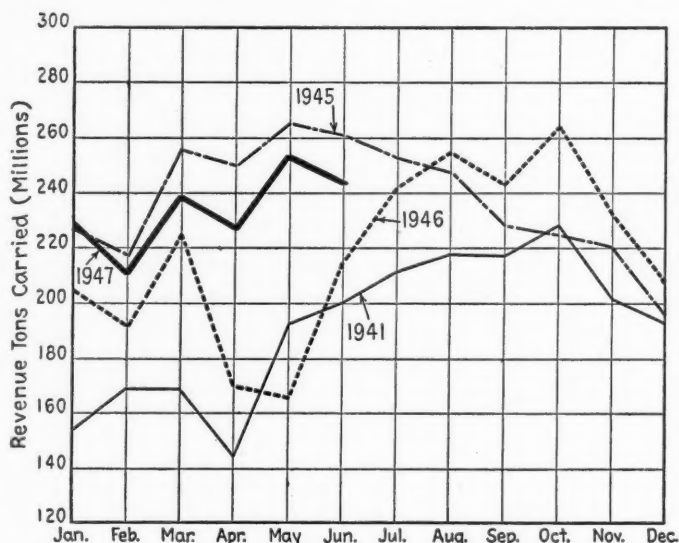
The higher rates were opposed by organizations representing traveling theatrical companies, but the commission found that the railroads had "discharged the burden of showing that the proposed charges would be just and reasonable."

Consolidated Statements Not Required for 1947

Division 1 of the Interstate Commerce Commission has waived for the year ending December 31, 1947, those provisions of its December 18, 1941, order which require the filing of "consolidated statistical statements" by railroads having annual railway operating revenues of \$10,000,000 or more.

Freight Car Loadings

Loadings of revenue freight for the week ended September 27 totaled 937,954 cars, the Association of American Railroads announced on October 2. This was an increase of 6,882 cars, or 0.7 per cent, from the previous week, an increase of 21,439 cars, or 2.3 per cent over the corresponding week last year, and an increase of 105,445 cars, or 12.7 per cent above the comparable week in 1945.



Revenue Tons and Revenue Ton-Miles—1947 Compared with 1941, 1945 and 1946

Rock Island Fined \$12,000

The Interstate Commerce Commission has been advised that fines totaling \$12,000 and costs in each case were imposed against the Chicago, Rock Island & Pacific and the American Can Company by a federal court in Chicago on September 25. Each of the defendants entered pleas of nolo contendere.

According to the commission, the informations filed against the defendants charged the carrier with having granted concessions to the shipper by placing and holding empty freight cars on Rock Island tracks for the convenience of American Can "without charge or tariff authority therefor," while the latter was charged with soliciting and receiving concessions from the road.

Signaling Hearing Before I. C. C.

In Chicago on September 29, the Interstate Commerce Commission, represented by Commissioner W. J. Patterson and Examiner E. J. Hoy, opened a series of hearings of the petitions by eight railroads for relief from compliance with the signaling order issued by the commission on June 17, which requires the railroads to install block signaling on lines not so equipped, on which freight trains are operated at 50 m.p.h. or more, or passenger trains at 60 m.p.h. or more; and additional protection, in the form of automatic train stop, train control or cab signaling, where trains are operated at 80 m.p.h. or more.

Some 28 or more roads have submitted petitions for relief from the order, but only 8 were scheduled to appear at the hearing starting on September 29. These include the Santa Fe, the Burlington, the Rock Island, the Chicago & North Western, the Great Northern, the Union Pacific, the Southern Pacific and the Western Pacific.

The Great Northern, which was first to present its case, requested relief from the order to the extent of being permitted to operate its new "Empire Builder" streamlined trains at speeds up to 85 m.p.h. on three sections of line, without being required to install automatic train stop, train control or cab signaling in addition to existing automatic block. These sections are Long Lake, Minn., to Breckenridge, 182 mi.; Nolan, N. D., to Minot, 189 mi.; and Lyons, Wash., to Canby, 25 mi.

The Union Pacific presented its case on September 30 and October 1. This road now has cab signaling on 225 mi. between North Platte, Neb., and Cheyenne, Wyo. This is to be replaced with modern, continuous coded cab signaling, which will be installed also between Omaha and North Platte, as well as between Cheyenne and Ogden, Utah, totaling 993 mi. of double track. This road, however, requested permission to operate its streamlined passenger trains at speeds in excess of 80 m.p.h., up to and including 90 m.p.h., on certain other sections of line without adding cab signaling to the existing automatic block and centralized traffic control. These sections are Julesburg, Colo., to Denver, 197 mi.; Pocatello, Idaho, to Huntington, Ore., 336 mi.; and Ogden, Utah, to Los Angeles, Cal., 821 mi. It pointed out that only one streamlined train is operated each way daily over any of these three territories.

Evidence presented by engineers in both the Great Northern and the Union Pacific cases had to do primarily with the increased difficulty engineers may have under adverse weather conditions in seeing the aspects being displayed by wayside signals at speeds ranging up to 85 m.p.h. or more, as compared with speeds not in excess of 79 m.p.h. The Union Pacific discussed the time saved by operating trains at maximum speed of 85 m.p.h. to 90 m.p.h., compared with 75 m.p.h. to 79 m.p.h. It contended that, as applying to the territory between Ogden and Los Angeles, the train time would be increased 1 hr. 30 min., thus delaying the arrival time in Los Angeles of the "City of Los Angeles" from 9 a.m. to 10:30 a.m., which would be seriously objectionable to the traveling public. Furthermore, the time remaining in Los Angeles in which to turn the train and service it, before time for departure, would thereby be reduced to less than that required to do the work.

Union Pacific engineers, when testifying with respect to the desirability of cab signaling, stated that in some instances snow or ice covered the roundels of color-light signals so that the aspect being displayed could be seen only with difficulty. On the other hand, the general signal engineer of the Union Pacific testified that during the last few years 24-in. hoods had been installed to replace former shorter hoods on all of the light signals, and that since these longer hoods had been in service no complaints had been received concerning snow or ice on the roundels. He was certain that if complaints of this nature had been made to safety committees on the various divisions they would have been brought to his attention.

In both the Great Northern and the Union Pacific cases there was considerable discussion concerning the use of a normally-open circuit for the control of electro-pneumatic brakes on streamlined trains. It was pointed out that both roads now have, or soon will have, indicators to show that the energy is available to operate the circuit and to check its operation. The engineer of air brake and train control design for the Union Pacific contended that the normally-closed circuit principle would not be satisfactory, because a broken wire might cause the brakes to be applied on some car of a train without the engineer knowing it, with the result that the wheels on that car might be overheated and cause trouble.

As this issue went to press the Southern Pacific was presenting its case, its request being somewhat similar to that of the Union Pacific in that the Southern Pacific has requested permission to operate the "City of San Francisco" streamlined train each way daily between Ogden and San Francisco without adding train control, train stop or cab signaling to the protection now in service.

Steel Makers and Car Builders Comment on Shortages

President Walter L. Tower of the American Iron & Steel Institute this week denied charges attributed to car builders that the steel industry was holding up production of vitally needed freight cars by not supplying to builders enough steel for

their programs. According to Mr. Tower, at the time of the three-cornered agreement between the Office of Defense Transportation, the steel industry, and the car builders, 163,000 tons of steel per month was all that was specified by the builders for the agreed program of 7,000 cars per month. He declared, moreover, that of that 163,000 tons per month for April, May, and June only 103,000 tons was planned to be used for the production of new cars, while the rest was to go into repairs of existing rolling stock. All that tonnage was shipped to the car builders, according to Mr. Tower, and in addition 130,000 tons of steel was made available to them. Despite this, the building program never reached its goal, falling nearly 4,000 cars short.

In the meantime, said Mr. Tower, nearly 16,000 new freight cars were shipped abroad during March, April, May and June. This may be one of the bottlenecks in production, he asserted, while the other may be shortages of wheels and castings, which are not included in the O. D. T. steel program. It was clear, however, he said, that the railroad car shops came much closer to their production goal than did the independent car builders.

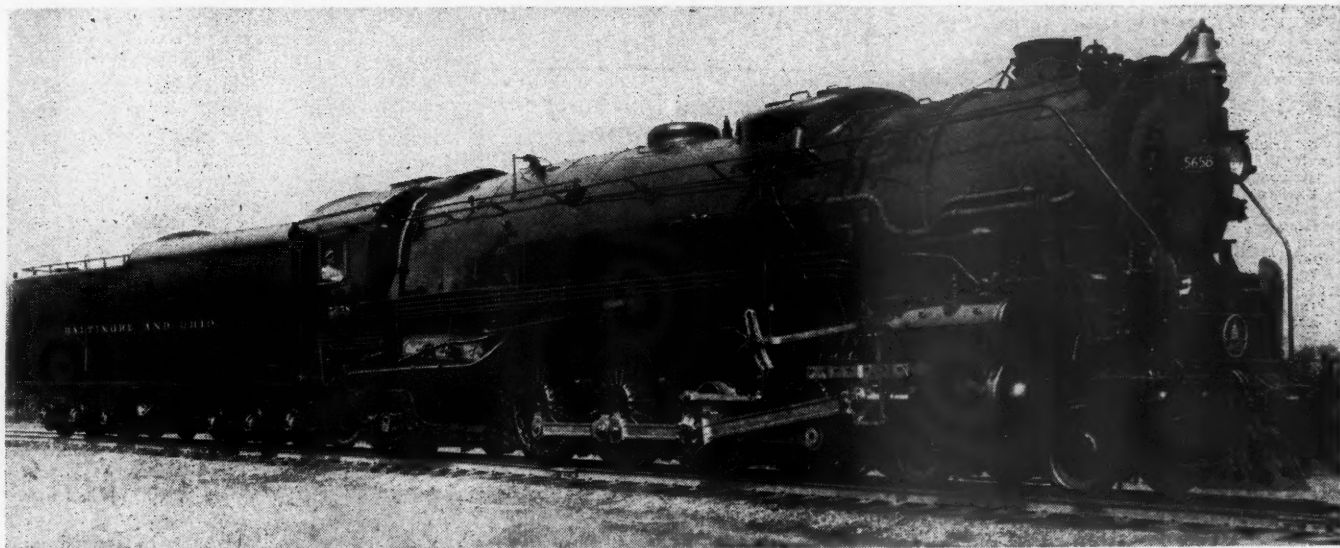
The next day, referring to the statement by Mr. Tower, S. M. Felton, president of the American Railway Car Institute, said that the car builders had never questioned the fact that the steel industry had fulfilled its promises to deliver large amounts of steel to the railroad shops, parts manufacturers and car builders. Mr. Felton asserted that the car builders have warned against lumping all steel delivered to railroad shops, car builders and parts manufacturers and assuming that all of it went into the manufacture of new cars. He pointed out further that the car builders use 14,000 tons of steel monthly in making parts to be used for repair or new parts by the railroads.

In addition, said Mr. Felton, the car builders also make trolley cars, mine cars, and railroad passenger cars. "Talk of total tonnages shipped is not pertinent to the subject and is grossly misleading," he said. Steel for such products is ordered separately, is of a different type, and could not be applied to the making of freight cars, even if it were desirable, he pointed out.

Revenues and Costs Must Be in Same Dollars, Says Fort

Only a large increase in freight rates will place the price structure of the railroads more nearly in line with that of other industries and prevent disaster from overtaking the railroads, J. Carter Fort, vice-president and general counsel of the Association of American Railroads, declared in an October 2 address to the New England Shippers Advisory Board, meeting at Springfield, Mass. Mr. Fort said that the railroads are the victims of a "drastically out of balance" price structure which makes the dollars they spend to carry on their business worth considerably less than the dollars they take in.

"It is obvious," he stated, "that the railroad business cannot be conducted on the fiction that the present-day dollar is worth



No. 5658, one of the 13 mountain-type locomotives recently bought by the Baltimore & Ohio from the Boston & Maine. With 67,000 lb. tractive force, 73-in. drivers and a tender capacity of 21 tons of coal and 20,000 gal. of water, these locomotives are now in high-speed freight service on the B. & O. between Chicago and Newcastle, Pa.

* * *

85 cents on a prewar basis for the purpose of purchasing rail transportation, but is worth only 50 to 60 cents for the purpose of paying the cost of performing such transportation."

Mr. Fort explained that the lack of balance between the national economy and the level of railroad freight rates is due to the fact that while commodity prices and labor costs have increased generally from 60 to more than 100 per cent since 1939, freight charges have gone up only 17½ per cent. He told the shippers that, "expressed in prewar dollars, or in terms of a 'real' or 'constant' dollar, railroad freight rates are now some 30 to 40 per cent less than they were before the war."

According to Mr. Fort, freight charges today represent a much smaller part of the delivered value of the commodities transported than they did before the war, because commodity prices have risen much more rapidly than freight rates.

"It would be necessary," he continued, "to raise the freight rate level about 40 per cent above the present level before freight charges would represent the same percentage of the delivered value of commodities which they represented in 1941, which is the year that the Interstate Commerce Commission made a study of the relationship between the amount of freight charges and the value of the commodities transported."

Pointing out that "the level of freight rates must reflect the cost of performing transportation service," Mr. Fort concluded: "This is at the root of the whole matter. In the long run, the cost of performing service must determine the rate level whether the rates are made by the railroads or by a governmental agency."

"The only real hope, therefore, for the lowest possible rates as time goes on is to be found in the lowest possible costs for performing transportation. Such low costs can be achieved only by a dynamic, progressive railroad industry. The best in the way of plant, equipment and facilities must

be provided and utilized, and the opportunity for constant improvement must be fully realized.

"This can be accomplished only under adequate earnings. Deferred maintenance, due to lack of funds, is high cost maintenance. Operation with inferior facilities is high cost operation. Inadequate earnings increase the cost of capital by injuring the credit of the railroad industry. In a word, impoverished railroads mean relatively high rates as well as poor service.

"There is only one way to avoid the impoverishment of the railroad industry, and that is to recognize that the dollars it takes in now as freight charges are worth only a fraction of prewar dollars, and to make a corresponding adjustment of the level of freight rates."

Military Railway Service Vets Hold Reunion in Chicago

More than 600 veterans of military railway service—representing every state in the union and some 62 army railway units—gathered at the Palmer House in Chicago on September 27. The occasion was the first annual reunion of the Military Railway Service Veterans, a new organization formed under the guidance of Major General Carl R. Gray, Jr., director general of the Military Railway Service during World War II and vice-president—public relations of the Chicago & North Western. Following registration and a short business session at which time officers were elected for the coming year, the veterans attended a major league baseball game in the afternoon and a banquet in the evening.

In keeping with the intention that the reunion be characterized as a "get together," there were no scheduled speeches for the dinner meeting. General Gray, presiding at the evening fete, introduced the following railroad executives and veterans of the Military Railway Service who made brief remarks: Colonel Fred W. Okie, president of the Union; Colonel John M. Budd,

president of the Chicago & Eastern Illinois; Brigadier General C. L. Burpee, general supervisor of terminals, Atlantic Coast Line; and Colonel Frank E. Chesnir, vice-president—operations, Chicago, Indianapolis & Louisville. Also introduced were Colonel John Noyes, U. S. Army, Washington, D. C. and Brigadier R. O.-D. Gage, of the British army's transport section, who is in this country as an observer of railway operations and of the army's railway training program.

Officers elected to head the group during 1947-48 were Major Lloyd Hatley, director general; Lt. Colonel J. W. Buford, assistant director general; and Sergeant W. S. Thompson, secretary-treasurer. The next reunion of the Military Railway Service Veterans will be held at St. Louis, Mo., on September 25, 1948.

General News
continued on
page 87

Organizations

The twenty-third annual dinner of the New Jersey Industrial Traffic League will be held at the Hotel Robert Treat, Newark, on October 16.

The 35th National Safety Congress and Exposition will be held at Chicago on October 6 to 10, inclusive. The Steam Railroad Section of the congress will hold its sessions in the Red Lacquer room of the Palmer House on October 7 to 9, inclusive, with C. M. Bowling, superintendent of safety of the Louisville & Nashville, presiding.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- AIR BRAKE ASSOCIATION.**—F. C. Gable, N. Y. N. H. & H. R. R. Co., New Haven 6, Conn.
- ALLIED RAILWAY SUPPLY ASSOCIATION.**—C. F. Weil, American Brake Shoe Company, 332 S. Michigan Ave., Chicago 4, Ill.
- AMERICAN ASSOCIATION OF BAGGAGE TRAFFIC MANAGERS.**—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis 1, Mo. Annual meeting, January 21-23, 1948, Rice Hotel, Houston, Tex.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, June 8-10, 1948, Hotel Stevens, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.**—E. A. Abbott, 1103 Cleveland St., Evanston, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 21-23, 1948, Chicago, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.**—W. C. Tabbert, 19 Rector St., New York 6, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—W. J. Walsh, B. & O. R. R., Baltimore 1, Md. Annual meeting, April 5-7, 1948, Hotel Roosevelt, New Orleans, La.
- AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 16-18, 1948, Palmer House, Chicago, Ill.
- AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.**—Clifford G. Massoth, Illinois Central Magazine, 135 E. 11th Pl., Chicago 5, Ill.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—J. P. Nye, Tower Bldg., Washington 5, D. C. Annual meeting, October 21-22, 1947, Hotel New Yorker, New York, N. Y.
- AMERICAN SOCIETY FOR TESTING MATERIALS.**—R. J. Painter, Asst. Secretary, 1916 Race St., Philadelphia 3, Pa.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—C. E. Davies, 29 W. 39th St., New York 18, N. Y. Annual meeting, December 1-5, 1947, Chalfonte-Haddon Hall, Atlantic City, N. J.
- Railroad Division.**—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.
- AMERICAN TRANSIT ASSOCIATION.**—A. W. Baker, 292 Madison Ave., New York 17, N. Y.
- AMERICAN WOOD-PRESERVERS' ASSOCIATION.**—H. L. Dawson, 1427 Eye St., N. W., Washington 5, D. C. Annual meeting, April 27-29, 1948, St. Paul, Minn.
- ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.**—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O. Annual meeting, October 6-8, 1947, Lord Baltimore Hotel, Baltimore, Md.
- ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.**—W. F. Ziervogel, 605 S. Ranken Ave., St. Louis 3, Mo. Annual meeting, October 7-9, 1947, Claridge Hotel, Atlantic City, N. J.

(Continued on page 90)

Construction

UNION PACIFIC.—This road has announced a \$125,000 communications improvement program to include the following: Installation of two-way radio in yard offices and on Diesel switch engines in the company's yards at Denver, Colo., Omaha, Neb., Salt Lake City, Utah, Seattle, Wash., Los Angeles, Cal., Portland, Ore., and Pocatello, Idaho; equipping of four engines and four cabooses with two-way radio for operation between Kansas City, Kan., and Maryville, and the building of fixed radio stations for communication with these trains at five points in Kansas; and the installation of 65 inter-communicating speakers and 15 paging speakers in the \$2,600,000 retarder yard now under construction at Pocatello.

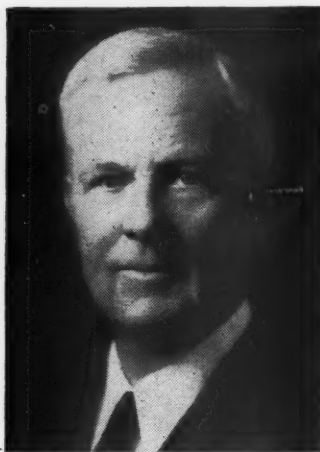
Supply Trade

Lima-General Machinery Combine Approved

Combination of the activities of the Lima Locomotive Works, Inc., Lima, Ohio, and General Machinery Corporation, Hamilton, Ohio, into one company known as the Lima-Hamilton Corporation, was approved by stockholders of each company at meetings held October 1.

The action, which followed the plan of reorganization authorized by the respective boards of directors in August, brings together two of the country's oldest manufacturing concerns in the heavy equipment field for the manufacture of Lima-Hamilton Diesel locomotives and continued production of steam locomotives, as well as a comprehensive line of heavy railroad and industrial equipment.

The top executive organization of Lima-Hamilton includes Samuel G. Allen as chairman of the board; George A. Rentschler, chairman of the executive committee, and John E. Dixon, president. Mr.



S. G. Allen

Allen and Mr. Rentschler were board chairmen, respectively, of the Lima Locomotive Works and the General Machinery Corporation, while Mr. Dixon was president of Lima.

Established in 1869, Lima Locomotive Works has long been a producer of steam locomotives and, since 1928 when it installed a shovel and crane division, has become an extensive manufacturer of power shovels, cranes, draglines and related equipment. During the war, it produced combat tanks for the U. S. Army.

With origins dating back to 1845, General Machinery Corporation is well known as a builder of Hamilton Diesel engines. General Machinery's development work for the past four years with a free-piston gas generator turbine promises future application in locomotives, ships and stationary power plants.

Facilities of the two companies are located within 100 miles of each other, and the unification is expected not only to complement manufacturing lines but also to effect economies in operation.

In addition to the manufacture of Diesel and steam locomotives, considerable diver-

sification of Lima-Hamilton's products is afforded through General Machinery's Niles line of heavy and medium machine tools for railroad and industrial use, its Hamilton line of presses for the automotive industry, and its experience in the manufacture of special machinery, such as plate-



G. A. Rentschler

glass polishing, sugar grinding and crushing machinery, and its recently developed can-making machinery. During the war, General also produced more than 800 large steam reciprocating engines for use in Liberty ships.

Formed in 1928, General Machinery Corporation that year acquired the Niles Tool Works Company, producer of large railroad and machine tools and special-purpose machinery, to merge it with the Hooven, Owens, Rentschler Company, both of which date back to 1845. The latter firm, in addition to production of stationary steam and gas engines, began Diesel-engine construction in 1924, when it built the first Hamilton Diesel.

Five years after this merger, General, in 1931, acquired the Hamilton Press & Machinery Co., manufacturer of the large presses for the automotive field, and the Putnam Machinery Company. Prior to the war, the General Machinery Ordnance



J. E. Dixon

Corporation, a subsidiary, was organized in 1940 at South Charleston, W. Va., for the production of naval ordnance, and in 1942, substantial stock interest was acquired by the General Machinery Corporation in

the Southeastern Shipbuilding Corporation at Savannah, Ga., where more than 100 Liberty ships and a number of AV1 cargo vessels were built during the war. General Machinery also obtained major stock interest in another affiliate, the United Welding Company, Middletown, Ohio.

Mr. Allen, chairman of the board of the new Lima-Hamilton Corporation, has been prominent in the railroad supply field since 1900. He is also board chairman of the American Arch Company, Franklin Railway Supply Company, the Superheater Company, and the G. M. Basford Company. He is chairman of the executive committee and a director of Combustion Engineering Company, and a director of the Lummus Company, and the Locomotive Booster Company.

Mr. Rentschler, chairman of the Lima-Hamilton Corporation executive committee, began his career in the machine industry with the Hooven, Owen, Rentschler Company. In 1929, he became president of General Machinery Corporation, and later chairman. He is a director of the Philip Carey Manufacturing Company, the Motor Wheel Corporation, the Barber Asphalt Corporation, the Charleston Shipbuilding & Drydock Co., and the Cincinnati Gas & Electric Co.

Mr. Dixon, president of the Lima-Hamilton Corporation, entered the locomotive field in 1900 with the Brooks Locomotive Works, which was absorbed a year later by the American Locomotive Company. He was moved from the Brooks plant to the sales department in the New York office of American Locomotive Company in 1904, becoming assistant sales manager. In 1916, he was elected vice-president of Lima Locomotive Works, of which he became president in 1939. Mr. Dixon is also a director of the Franklin Railway Supply Company, the Combustion Engineering Company, and the Superheater Company.

B. H. Johns, manager of the St. Louis (Mo.) branch of the **Independent Pneumatic Tool Company**, has been appointed manager of the company's mining and contractors tool sales division, with headquarters at Chicago. Mr. Johns will be succeeded by **W. B. Smith**, manager of the firm's Houston (Tex.) office, who, in turn, is succeeded by **R. F. Caslin**.

R. L. Terrell, whose appointment as general parts manager of the **Electro-Motive Division of General Motors Corporation**, with headquarters at La Grange, Ill., was reported in *Railway Age* of September 27, was born at Dayton, Ohio, in 1918, and entered G. M. service in 1936 as an apprentice in the research laboratory, at Detroit, Mich. After service of a year and a half in the Army Air Forces as an engine mechanic and a short period in the G. M. research laboratory, he joined the Electro-Motive Division as a service engineer in 1939. In 1941 he became an installation engineer on the G. M. pancake Diesels going into SC boats, and in 1942 he entered the United States Navy as a lieutenant, junior grade, and was sent to England as an advisor on the maintenance of American built engines. Mr.

Terrell returned to the Bureau of Ships in Washington, D. C., in 1943, and until V-J Day he was head of the Navy's worldwide internal combustion engine



R. L. Terrell

reclamation program. After V-J Day he was in charge of the disposal of surplus Navy engines. In November, 1945, he left the Navy with the rank of lieutenant commander, and returned to the Electro-Motive Division. He was sent to Washington, D. C., as sales representative, and in October, 1946, he was advanced to district sales manager, the position he held at the time of his recent appointment.

Thomas W. Krueger, formerly with the Jones & Laughlin Steel Corp., has been appointed advertising manager of the **Duff-Norton Manufacturing Company**, Pittsburgh, Pa.

Robert Maguire has been appointed manager of the traffic division of the **Atlantic Refining Company**, Philadelphia, Pa., to succeed the late **Harry C. Hoffa**.

Carl Geis has been elected vice-president in charge of sales and **T. E. McDowell**, vice-president in charge of engineering of the **Pyle-National Company**, Chicago, as reported in *Railway Age* of



Carl Geis

September 13. Mr. Geis joined Pyle-National as a clerk in 1914 and, after a period in the United States Army Air

Corps, he returned to the company as a service engineer at the Chicago office, from 1919 to 1923. He was then transferred east and, in 1928, was appointed district sales manager for New England, with headquarters in Boston, Mass. In June, 1935, he returned to New York as district sales manager and has been eastern sales manager, with headquarters in New York, since 1937.

After graduating from the Illinois Institute of Technology, Mr. McDowell worked for a brief period with the Illinois Bell Telephone Company and, in 1935, joined



T. E. McDowell

Pyle-National as an electrical engineer. He was chief engineer in charge of product design at the time of his recent election.

Robert B. Haynes, formerly equipment manager of the Spicer Manufacturing division of the **Dana Corporation** in Toledo, Ohio, has been promoted to the newly-created position of works manager.

Two new branch offices have been opened by the **Gardner-Denver Company**, at New Orleans, La., and Cleveland, Ohio, with **M. B. Morrisette** and **R. A. Williams** as managers, respectively. A third office will be opened on October 15 at Kansas City, Mo., to be managed by **E. C. Wallace**. Other changes in the firm's personnel includes the transfer of **A. C. Beeson**, manager at Detroit, Mich., to the main offices at Quincy, Ill. He is succeeded by **G. A. Murphy**.

E. L. Klopfer has joined **Morrison Metalweld Process, Inc.**, Buffalo, N. Y., to research its track appliance and field operations. Mr. Klopfer was graduated from Lehigh University in June, 1947, with a B. S. degree in metallurgical engineering. The appointment of **M. L. Morrison**, formerly a member of the estimating and engineering department, as assistant to the vice-president, also was announced.

Norman B. Johnson, manager of freight car plants of the **Pullman-Standard Car Manufacturing Company**, has been appointed to the newly created post of assistant executive vice-president, with headquarters at Chicago.

Perry M. Gish, formerly assistant general traffic manager of the **American Radiator & Standard Sanitary Corp.**,

has been promoted to general traffic manager, to succeed Benjamin S. Thomas, who has retired.

Mr. Gish began his business career, in 1919, as a warehouse clerk in the St. Paul, Minn., office of the American Radiator Company, a predecessor company to American-Standard. Five years later he was appointed office supervisor and, in



Perry M. Gish

1929, he was transferred to the Buffalo, N. Y., sales office and promoted to office supervisor and credit manager. From 1932 to 1934 he served in an administrative capacity in the treasurer's office in New York. In the latter year, he was appointed office supervisor of the New York sales office and, in 1937, assistant to the manager of that office. Mr. Gish was transferred to the general order department as assistant manager in 1940 and five years later was promoted to assistant general traffic manager, the position he held until his recent promotion.

Roy C. Hobson has been elected assistant to the vice-president in charge of sales of the National Malleable & Steel Castings Co. Mr. Hobson joined National Malleable in 1928, as a member of the road service division of the railway sales department, and two years later he was

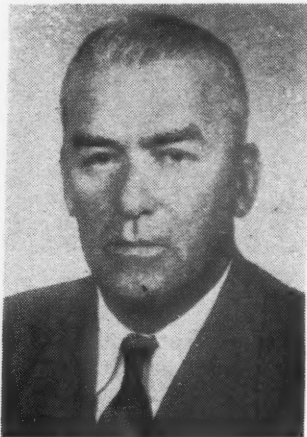


Roy C. Hobson

transferred to the specialty development department. He was appointed chief inspector at the Sharon, Pa., plant in 1938 and,

in 1944, was assigned to engineering work on company products. In 1945 he was appointed assistant sales manager of the Chicago works sales department, which position he held at the time of his recent election.

A. O. Myers, whose appointment as district sales manager of the Electro-Motive Division of General Motors Corporation, with headquarters at Washington, D. C., was reported in *Railway Age* of September 27, was born in New York



A. O. Myers

City and graduated by Ohio State University. He joined the Saginaw Steering Gear Division of G. M. in 1928, and came to the Electro-Motive Division in 1942. During World War II he served in the Transportation Division of the War Production Board, at Washington, D. C., and then in the Washington office of the Electro-Motive Division. He was appointed manager of the demonstration section in 1946.

Equipment and Supplies

Domestic Equipment Orders Reported in September

During September *Railway Age* reported domestic orders for 32 Diesel-electric locomotives and 6,826 freight cars (including

36 ordered by a private car line). No passenger car orders were reported. The estimated cost of the locomotives is \$4,650,000 and the freight cars will cost an estimated \$26,600,000. Of the 6,790 freight cars ordered by railroads, 750 will be built in railroad shops. The accompanying table lists the orders in detail.

During the first nine months of this year, *Railway Age* has reported domestic orders for 406 Diesel-electric, 1 gas-turbine, 4 electric and 10 steam locomotives (costing an estimated \$83,900,000), 76,491 freight cars (at an estimated cost of \$298,285,000), and 275 passenger cars (the estimated cost of which is \$22,737,000).

LOCOMOTIVES

The ELGIN, JOLIET & EASTERN has placed an order with the Baldwin Locomotive Works for twenty-five 2,000-hp. Diesel-electric transfer locomotives. Delivery commencing early in 1948 is anticipated.

The 25 new locomotives have been ordered after extensive use of the original single-unit 2,000-hp. engine, delivered to the E. J. & E. in May, 1946, in both road and yard operation. Certain improvements will be incorporated in the latest engines, including a "dressing up" of the appearance with changes in contour of the ends and the cab, and the addition of streamlined skirting. A walkway will be provided at each end for use of switching crews and maintenance men. The cab will be lengthened to allow more room. A detailed description of the experimental locomotive appeared in *Railway Age* of August 31, 1946.

The SPOKANE, PORTLAND & SEATTLE has ordered 3 1,000-hp. Diesel-electric switching locomotives from the Electro-Motive Division of General Motors Corporation, delivery of which is scheduled for January, 1948.

FREIGHT CARS

The ATLANTA & WEST POINT has ordered 20 50-ton hopper cars and the WESTERN OF ALABAMA has ordered 30 50-ton hopper cars, both from the Pullman-Standard Car Manufacturing Company. Delivery of these cars is expected in the second quarter of 1948.

Locomotives				
Date	Purchaser	No.	Type	Builder
Sept. 13	Erie	5	1,000-hp. D.E.-sw.	American
		5	1,000-hp. D.E.-sw.	Electro-Motive
		1	660-hp. D.E.-sw.	Electro-Motive
Sept. 20	Seaboard Air Line	12	2,000-hp. D.E.-pass.	Electro-Motive
		6	1,500-hp. D.E.-frt.	American
		3	1,000-hp. D.E.-sw.	American
Freight Cars				
Date	Purchaser	No.	Type	Builder
Sept. 6	D. L. & W.	500	50-ton Box	American Car & Fdy.
Sept. 20	Chicago Hgts. Term.	25	70-ton Cov. Hopper	General American
		15	70-ton Gondola	Pressed Steel
Sept. 20	Ill. Term.	100	50-ton Box	American Car & Fdy.
Sept. 20	Lehigh Valley	500	55-ton Hopper	Bethlehem Steel
Sept. 20	Shell Chem. Corp.	36	8,000-g. Alum. Tank	American Car & Fdy.
Sept. 20	Seaboard Air Line	500	50-ton Box	Pressed Steel
		300	70-ton Hopper	Bethlehem Steel
Sept. 27	C. M. St. P. & P.	750	Auto-Box	R. R. Shops
Sept. 27	Erie	1,000	50-ton Hopper	American Car & Fdy.
		700	50-ton Box	American Car & Fdy.
		100	70-ton Cov. Hopper	Ralston
Sept. 27	St. L. - S. F.	500	55-ton Hopper	Pullman-Standard
		300	Box	Pullman-Standard
		300	55-ton Hopper	Pressed Steel
Sept. 27	W. & L. E.	200	70-ton Cov. Hopper	Pressed Steel
		1,000	70-ton Hopper	Ralston

L I M A - H A M I L T O N C O R P O R A T I O N

Announcement

Effective Oct. 1, 1947

LIMA LOCOMOTIVE WORKS, INCORPORATED—LIMA, OHIO

and

GENERAL MACHINERY CORPORATION — HAMILTON, OHIO

will operate under the name of

LIMA-HAMILTON CORPORATION

WORKS

LIMA, OHIO

HAMILTON, OHIO

MIDDLETOWN, OHIO

With the following divisions

**LIMA LOCOMOTIVE WORKS
LIMA SHOVEL & CRANE DIVISION**

**NILES TOOL WORKS CO.
HOOVEN, OWENS, RENTSCHLER CO.**

October 4, 1947

73

The BIRMINGHAM SOUTHERN has ordered 128 70-ton hopper cars from the Pullman-Standard Car Manufacturing Company, to be delivered in the second quarter of 1948.

The CHICAGO, BURLINGTON & QUINCY has ordered 150 70-ton covered hoppers from its Lincoln (Neb.) shops to be built at an estimated cost of \$700,000. The Burlington will acquire an additional 100 70-ton covered hoppers on a lease purchase basis from the Shippers Car Company.

The GEORGIA has ordered 75 50-ton hopper cars from the Pullman-Standard Car Manufacturing Company, to be delivered in the second quarter of 1948.

The GULF, MOBILE & OHIO has ordered 50 70-ton mill-type gondola cars from the Pressed Steel Car Company, for delivery in the first quarter of 1948.

The NORFOLK & WESTERN has ordered 2,000 70-ton hopper cars to be built in its own shops at Roanoke, Va. Deliveries are expected to begin in March, 1948.

The SEABOARD AIR LINE has ordered 300 50-ton high-side gondola cars and 100 50-ton low-side gondola cars from the American Car & Foundry Co. to be delivered in the third quarter of 1948. An inquiry for this equipment was reported in *Railway Age* of September 20.

SIGNALING

The CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC has ordered 53 sets of three-indication cab signal equipment for steam locomotives and 12 sets of the same type equipment for Diesel locomotives from the Union Switch & Signal Co. These locomotive equipments are for use in train control territory between Chicago and Minneapolis, Minn.

The ELECTRO-MOTIVE DIVISION of the General Motors Corporation has ordered 15 sets of intermittent inductive automatic train control equipment from the General Railway Signal Company. Twelve sets will be installed on Diesel-electric freight locomotives for the New York Central, and three sets will be installed on Diesel-electric passenger locomotives for the Pere Marquette district of the Chesapeake & Ohio.

The SOUTHERN has ordered 2 sets of automatic train control equipment from the General Railway Signal Company. This equipment, of the intermittent inductive type, will be installed on Diesel-electric locomotives used in freight service.

Financial

ATCHISON, TOPEKA & SANTA FE.—*New Member of Executive Committee.*—Edward L. Ryerson, chairman of the board of directors of the Inland Steel Company, has been elected a member of the executive committee of this road.

CHICAGO & ILLINOIS MIDLAND.—*Notes.*—This road has applied to the Interstate Commerce Commission for authority to issue and sell \$1,000,000 of 4 per cent unsecured serial notes, the proceeds of which will be applied toward the purchase of 350 70-ton gondola cars, at approximately \$4,444 each, from the Pullman-Standard Car Manufacturing Company. The application stated that, because the proposed issue would not exceed \$1,000,000 and was thus exempt from the commission's competitive-bidding requirements, the notes have been sold, subject to commission approval, to three annuity funds maintained within the public-utility system of the applicant's parent corporation, Commonwealth Edison Company. The notes will be payable in five semi-annual installments of \$200,000 each, starting December 1, 1956.

CHICAGO, ROCK ISLAND & PACIFIC.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has authorized this road to acquire control, through stock ownership, and to lease and operate the Burlington, Muscatine & Northwestern, which consists of approximately 5.9 miles of track used principally for switching in Muscatine, Iowa. The applicant has agreed to purchase, among other things, the B. M. & N.'s outstanding 1,000 shares of capital stock for \$60,000. The transaction was approved by the commission subject to the usual employee-protection conditions.

ERIE.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$6,850,000 of equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment:

Description and Builder	Estimated Unit Price
3 6,000-hp. Diesel-electric freight locomotives (Electro-Motive Division, General Motors Corporation)	\$609,060
10 1,000-hp. Diesel-electric switching locomotives (Electro-Motive Division, G. M. C.)	94,885
9 6,000-hp. Diesel-electric freight locomotives (American Locomotive Company)	606,576
1 660-hp. Diesel-electric switching locomotive (Baldwin Locomotive Works)	73,950
3 1,000-hp. Diesel-electric switching locomotives (Baldwin)	94,850

The certificates would be dated October 15 and mature in 10 equal annual installments of \$685,000 each, starting October 15, 1948. They will be sold on the basis of competitive bidding.

RICHMOND, FREDERICKSBURG & POTOMAC.—*Note.*—This road has applied to the Interstate Commerce Commission for authority to issue a \$400,000 note, the proceeds of which would be applied toward the cost of equipment to be acquired from the American Car & Foundry Co. under a conditional sales agreement. The note would be dated November 1 and mature in 20 installments of \$20,000 each. The rate of interest would be determined by competitive bidding.

MIDDLETOWN & NEW JERSEY.—*Acquisition.*—Division 4 of the Interstate Commerce Commission has authorized this recently-organized company to acquire and operate the railroad properties of the Middletown & Unionville, extending approximately 13 miles between Middletown,

N. Y., and Unionville, and to lease from the New York, Ontario & Western approximately 1.1 mile of track in Middletown, formerly operated under lease by the M. & U. The M. & N. J. will acquire the properties from former M. & U. stockholders who purchased them at a foreclosure sale earlier this year. The present transactions were approved subject to the usual employee-protection conditions.

At the same time, the commission authorized the M. & N. J. to issue not exceeding \$15,000 of common stock, consisting of 150 shares of the par value of \$100 per share, and a purchase-money bond and mortgage in the principal amount of \$10,000. The latter along with \$12,000 in cash from proceeds of the stock issue will be used to purchase the M. & U. properties. The price of \$22,000 being based on the salvage value. Proceeds from the sale of the remaining \$3,000 of stock will be used for working capital. The bond will bear interest at the rate of 5 per cent, payable semi-annually.

ST. LOUIS SOUTHWESTERN.—*Trustee Discharged.*—Federal Judge George H. Moore, at St. Louis, Mo., last week discharged Berryman Henwood, trustee of the Cotton Belt, as the railroad completed two months of operation under private control as ordered by Judge Moore last July. The road was returned to its stockholders on July 24, following a voluntary readjustment of its financial structure which Mr. Henwood and the debtor corporation had proposed in May. (See *Railway Age* of August 2, page 203).

SEABOARD AIR LINE.—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to assume liability for \$4,500,000 of Series B equipment trust certificates, the proceeds of which will be applied toward the purchase of the following equipment:

Description and Builder	Estimated Total Price
10 3,000-hp. Diesel-electric road locomotives (Baldwin Locomotive Works)	\$2,525,000
3 1,500-hp. Diesel-electric road locomotives (Baldwin)	444,408
2 1,500-hp. Diesel-electric road locomotives (Electro-Motive Division, General Motors Corporation)	299,241
4 1,500-hp. Diesel-electric switching locomotives (American Locomotive Company)	540,340
175 70-ton, all-steel covered phosphate cars (Pullman-Standard Car Manufacturing Company)	1,017,690
300 70-ton, all-steel coal hopper cars (Pullman-Standard)	1,298,400

The certificates, to be sold on the basis of competitive bidding, would be dated October 15. They would mature in 15 annual installments of \$300,000 each, starting October 15, 1948.

Dividends Declared

ATCHISON, TOPEKA & SANTA FE.—\$1.50, payable December 1 to holders of record October 31.

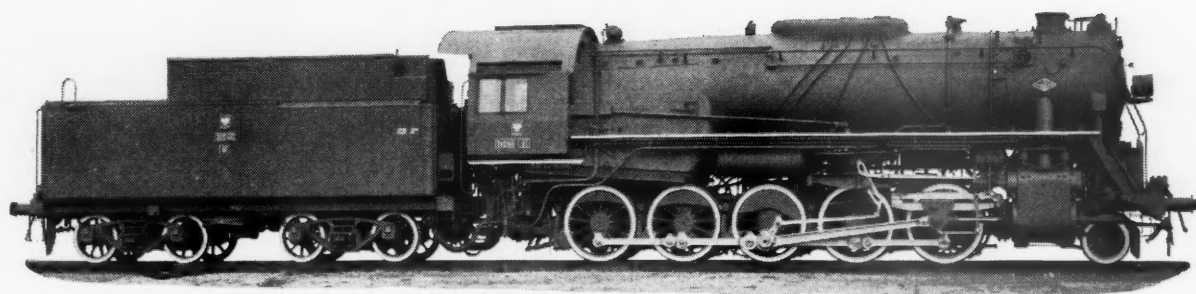
Belt Stockyards.—common, 50¢, quarterly; 6% preferred, 75¢, quarterly, both payable October 1 to holders of record September 20.

Gulf, Mobile & Ohio.—\$5.00 preferred (irregular), \$2.50, payable October 21 to holders of record October 1.

Illinois Terminal.—18¢, quarterly, payable November 11 to holders of record October 9.

Joliet & Chicago.—guaranteed stk., \$1.75, quarterly, payable October 6 to holders of record September 26.

the first of 20 for Poland



The first of 20 of the above type 2-10-0's was recently completed by Lima Locomotive Works, Incorporated for the Republic of Poland. These locomotives, carrying the familiar Lima diamond, will be used by the Polish Government to speed up the reconstruction of the Polish Railway System which was decimated by seven years of bitter warfare.

LIMA LOCOMOTIVE WORKS



INCORPORATED, LIMA, OHIO

Kansas City Southern.—4% pfd., \$1.00, quarterly, payable October 15 to holders of record September 30.

Minneapolis & St. Louis.—50¢, payable October 24 to holders of record October 15.

Norfolk & Western.—New adjustment preferred, 25¢, quarterly, payable November 10 to holders of record October 15.

Providence & Worcester.—\$2.50, quarterly, payable October 1 to holders of record September 22.

Reading Co.—25¢, quarterly, payable November 13 to holders of record October 16.

Vermont & Massachusetts.—\$3.00, semi-annually, payable October 7 to holders of record October 1.

Average Prices Stocks and Bonds

	Sept. 30	Last week	Last year
Average price of 20 representative railway stocks...	47.44	46.67	47.85
Average price of 20 representative railway bonds...	87.54	88.15	88.68

Car Service

I.C.C. Service Order No. 180 (fourth revised), which prescribed super-demurrage charges on refrigerator cars, has been modified by Amendment No. 17 which postponed the expiration date from October 1 until January 31, 1948. However, the new amendment does not modify the provisions of Amendment No. 16 which suspended the entire order from August 25 until further notice.

Chairman Warren C. Kendall of the Car Service Division, A.A.R., has informed railroad transportation officers that there has been a "boggling down of the plan, inaugurated last March, for relocating freight cars to home roads through a better observance of Car Service Rules. Mr. Kendall's statement was made in a September 25 circular which gave figures showing that there were only 38.3 per cent of home cars on home roads as of September 1. This compared with 35.8 per cent on April 1, when the campaign had just got under way, and with the "high point" of 39.7 per cent reached on July 1.

The C.S.D. chairman said that reports from the division's agents indicated a "continuing improvement in rules observance," and he conceded that the September 1 situation might have been due to the increased demand for box cars as the grain loading season advanced. He added, however, that "the over-all results are not satisfactory and there is an increasing demand that a greater volume of cars be relocated to home territory."

Mr. Kendall went on to urge increased supervision directed toward better observance of the rules and increased efforts on the part of station forces to interest shippers in the matter of loading in accordance with the rules and to secure information as to routing and destination when car orders are placed. "The wide distribution of car selection charts, both at freight-houses and industries, has proven highly advantageous," Mr. Kendall also said. "In one recent case it was observed that there had been a reduction in rule violations from 41 per cent to 18.7 per cent, which was attributed mainly if not entirely to the use of these charts with car handling forces. The charts will be made available in any quantity desired."

Chairman Warren C. Kendall of the Car Service Division, A.A.R., issued a September 29 circular embodying recommendations to railroad transportation officers with respect to supplying cars for this year's Christmas-tree movement. The recommendations are: "(1) Use rough box cars, open tops or flat cars which are available and can be used in the direction of owning railroad in accordance with Car Service Rules; (2) where both rough box cars and open top cars are available which could be used in accordance with Car Service Rules, load rough box in preference."

Abandonments

MINNEAPOLIS & ST. LOUIS.—This road has asked the Interstate Commerce Commission to issue a certificate stipulating that public convenience and necessity permit abandonment by the Chicago & North Western of operation under trackage rights over the M. & St. L. line between a point near Peoria, Ill., and a point near Middle Grove, approximately 27.5 miles. According to the applicant, the agreement has imposed "unjustified burdens" upon it, while bringing "large unjustified benefits" to the C. & N. W.

RAPID CITY, BLACK HILLS & WESTERN.—Examiner P. C. Albus has recommended in a proposed report that Division 4 of the Interstate Commerce Commission authorize this road to abandon its entire line, extending approximately 32.2 miles from Rapid City, S.D., to a connection with the Chicago, Burlington & Quincy and to abandon operation over approximately 1.3 mile of the latter from the point of connection to Mystic. Abandonment of the line was recommended subject to the condition that the 32.2-mile segment, or any portion thereof, be sold to any responsible party offering to purchase it for continued operation and willing to pay not less than its net salvage value of \$287,234.

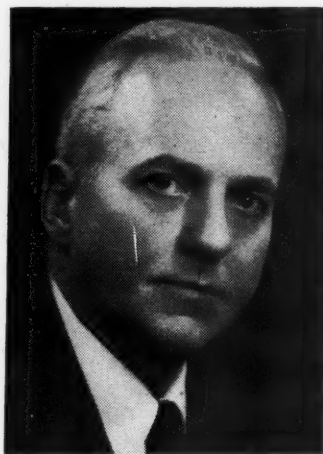
According to the examiner, the applicant is without the necessary resources to rehabilitate the line in order to provide a "reasonable degree" of safety. The report also noted that if the proposed abandonment is permitted, the rail needs of Rapid City will be "amply provided" by the Chicago & North Western and the Chicago, Milwaukee, St. Paul & Pacific in addition to common carrier bus and truck transportation.

Railway Officers

EXECUTIVE

William T. Rossell, whose election to the presidency of the Hudson & Manhattan was reported in *Railway Age* of August 9, was formerly president and a director of Transit Research Corporation, a firm formed and owned by transit operating companies and manufacturers for the de-

signing of modern interurban rapid transit rail vehicles. He is also a director of National City Lines. From 1939 to 1944 Mr. Rossell was president and director of the St. Louis Public Service Company, and for nine years prior to 1939 he was



William T. Rossell

vice-president of the Brooklyn & Queens Transit Corporation, in charge of trolley and bus lines in Brooklyn, N. Y., connecting with subway and elevated lines.

Colonel Hugh A. Kelly, whose election as chairman of the board of directors of the Hudson & Manhattan was reported in *Railway Age* of August 9, has been in private practice for many years as an architect and professional engineer, with offices at New York and Jersey City, N. J. He was an officer in the corps of engineers in the first world war and during World War II he served as military assistant to



Col. Hugh A. Kelly

Major General Joseph C. Mehaffey, governor of the Panama Canal and president of the Panama railroad, and also as security officer and advisor to former Secretary of State James F. Byrnes at the London and Moscow conferences. During the last term of former Governor Moore of New Jersey, he served as his executive secretary. When the Hudson & Manhattan tunnels were first projected, Colonel Kelly was one of a surveying party. He also served in the engineering department of the Public Service Railways.

Roller-Bearing JOURNAL BOXES for Railroads

FRANKLIN RAILWAY SUPPLY COMPANY, INC. announces the establishment of a department for the manufacture of Journal Boxes for any make of roller bearings used on railroads. *We invite your inquiries.*

Franklin Journal Boxes are made to meet A.A.R. requirements and in strict accordance with the tolerances established by all bearing manufacturers.

Franklin enjoys the unique position of being able to manufacture precision-machined Journal Boxes complete from raw material to the finished box entirely within one plant.

Franklin Boxes are made of electric-furnace steel cast in our own foundry or from weldments fabricated in our modern weld shop, at the customer's preference and as the design permits.

Franklin's modern machine-tool equipment plus trained personnel accustomed to close-tolerance work insure the high degree of precision required for Roller-Bearing Journal Boxes.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

NEW YORK • CHICAGO • MONTREAL

STEAM DISTRIBUTION SYSTEM • BOOSTER • RADIAL BUFFER • COMPENSATOR AND SNUBBER • POWER REVERSE GEARS
AUTOMATIC FIRE DOORS • DRIVING BOX LUBRICATORS • STEAM GRATE SHAKERS • FLEXIBLE JOINTS • CAR CONNECTION

Robert S. Macfarlane, vice-president and assistant to the president of the Northern Pacific, has been elected executive vice-president, with headquarters as before at Seattle, Wash.

C. W. Pflager, assistant vice-president, operating department, of the Pullman Company, with headquarters at Chicago, has retired after 55 years of service with the company.

Warren W. Brown, formerly assistant freight traffic manager of the New York, Chicago & St. Louis, at St. Louis, Mo., has been appointed vice-president—traffic of the Chicago, Indianapolis & Louisville, with headquarters at Chicago. A photo of Mr. Brown and a sketch of his career appeared in *Railway Age* of November 9, 1946, in connection with his appointment as assistant freight traffic manager of the N. Y. C. & St. L.

A. F. Cleveland, vice-president in charge of the traffic department of the Association of American Railroads, with headquarters at Washington, D. C., retired on September 30. The A. A. R. board of directors, meeting on September 26, decided not to fill this vacancy, but has created the new post of traffic officer to head the traffic department. **Walter J. Kelly**, assistant to the vice-president in charge of the traffic department, was named to the new post of traffic officer. Born in Chicago on September 19, 1874, Mr. Cleveland received his bachelor of arts degree from Yale University and his bachelor of laws at Cleveland Law School. He began his railroad career in 1898 as solicitor on the Chicago & North Western,



Walter J. Kelly

becoming general agent in 1899, which position he held successively at Atlanta, Ga.; Cincinnati, Ohio; and Philadelphia, Pa. Mr. Cleveland was appointed assistant general freight agent at Chicago in 1912 and assistant freight traffic manager there in 1920. He was promoted to vice-president, rates and divisions, at Chicago in 1929, which position he held until November 1, 1934, when he left the Chicago & North Western to become vice-president in charge of the traffic department of the A. A. R. at Washington.

Mr. Kelly was born at Chicago on June 23, 1887, and entered railroad service in September, 1901, at the age of 14, in the

freight claim department of the Illinois Central at Chicago. From September, 1907, until June, 1919, he served as chief clerk and chief claim clerk in the general freight department of the Grand Rapids & Indiana (now Pennsylvania) at Grand Rapids, Mich. On the latter date Mr. Kelly became tariff publishing agent, United States Railroad Administration at Chicago, taking over a similar position with the Central Freight Association in March, 1920, and becoming a member of the Auxiliary Committee of the latter association in December, 1921. Mr. Kelly was appointed assistant to vice-president in charge of the traffic department of the A. A. R. in March, 1937, which position he held until his recent appointment as traffic officer.

FINANCIAL, LEGAL AND ACCOUNTING

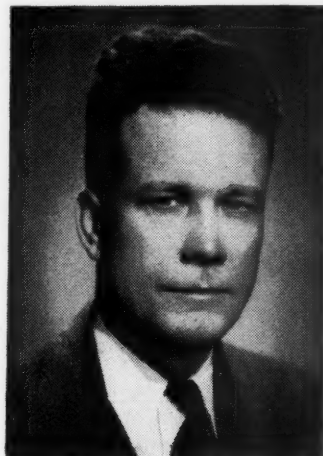
John Garing has been appointed right of way, land and tax commissioner of the Great Northern, with headquarters at St. Paul, Minn., succeeding **W. L. Schoettler**, who has retired after 41 years of service with the railroad. Succeeding Mr. Garing as assistant commissioner is **M. E. Frey**, right of way and tax agent at Seattle, Wash.

R. L. Fulton, auditor of passenger and station accounts of the Northern Pacific, at St. Paul, Minn., has been promoted to assistant general auditor—revenues there, succeeding **Edward J. Johnson**, who has retired after 48 years of service with the company. Mr. Fulton is succeeded by **Paul R. Carlton**, auditor freight accounts, who in turn is succeeded by **Carl Pace**, assistant auditor freight accounts. Succeeding Mr. Pace is **F. W. Jackson**, special accountant. **Gustav Cederberg**, assistant to the general auditor, has also retired.

Joseph L. Baldwin, assistant western counsel of the Patent division of the Association of American Railroads, with headquarters at Chicago, has been named eastern counsel, with headquarters at Washington, D. C., succeeding **Melvin H. Coulston**, who will retire on November 1. Mr. Baldwin was born at Pulaski, Va., in 1907, and was graduated from the Roanoke (Va.) high school, Roanoke College and George Washington University. He began his career in 1929 as patent examiner for the Eastern Railroad Association, and continued in this post until 1936, when he became patent examiner for the A. A. R. In 1938, Mr. Baldwin was appointed assistant western counsel of the Patent division of the A. A. R.

Mr. Coulston, who was born in West Bingham, Pa., in 1877, was graduated from Cornell University in 1902. He served in the U. S. Patent Office from 1902 to 1921 in such capacities as assistant examiner, chief clerk, assistant commissioner and commissioner of patents. From 1921 to 1927 he was assistant counsel of the Eastern Railroad Association and from 1927 to 1936 was general counsel of that organization. In 1936 Mr. Coulston was named eastern counsel of the Patent division of the A. A. R., from which position he will retire on November 1.

Roland M. Rice, general counsel of the American Trucking Associations, has been appointed assistant general counsel of the Association of American Railroads, effective November 1. Born at Millersville, Md., in 1903, Mr. Rice received his bachelor's degree from American University and his law degree from George Washington University. Later he returned to American University for post-graduate work, and also studied for a short time



Bachrach

Roland M. Rice

at Johns Hopkins University, Baltimore, Md., before entering a law and insurance office at Bethesda, Md. Before beginning his career in law, Mr. Rice taught in various public and private schools and American University. Prior to his affiliation with the American Trucking Associations, Mr. Rice served with the trucking industry's Code Authority, which was set up under the National Industrial Recovery Administration. He was appointed assistant general counsel of the A. T. A. in November, 1935, and general counsel in May, 1942.

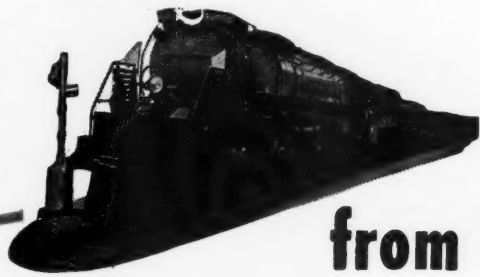
E. R. Lauman has been appointed assistant general auditor of the Missouri Pacific, with headquarters at St. Louis, Mo.

John W. Murphy, whose appointment as general solicitor of the St. Louis Southwestern, with headquarters at St. Louis, Mo., was reported in *Railway Age* of September 13, was born at Burlington, Iowa, on June 30, 1889, and received his higher education at the University of Chicago and at Northwestern University. He entered railroad service in 1916 as a special assistant to the vice-president of the Chicago, Burlington & Quincy, at Chicago, and from 1916 to 1925 he was assistant to the district attorney, Iowa lines, of the Burlington. In 1925 Mr. Murphy was appointed assistant general attorney of the St. Louis-San Francisco at St. Louis, and served with that road until September, 1939, when he joined the St. Louis Southwestern as assistant general solicitor at St. Louis, the position he held at the time of his recent appointment.

OPERATING

P. K. Hobbs has been appointed trainmaster of the Birmingham district of the Atlantic Coast Line at Manchester, Ga.

Get every
pound of
POWER



from those hot gases

● The installation of Security Circulators in a locomotive boiler provides a large additional heating area in the path of the hot gases.

This enables the locomotive to get up steam more speedily; increases the rapidity of water circulation from the side legs over the crown sheet; and aids in maintaining maximum boiler output.

Circulator-equipped locomotives are now in operation on fifty different railroads.

AMERICAN ARCH COMPANY, INC.

NEW YORK • CHICAGO

SECURITY CIRCULATOR DIVISION

Mahlon Bracy, safety supervisor of the Southern at Birmingham, Ala., has been promoted to general safety supervisor, Western lines, with headquarters at Cincinnati, Ohio, succeeding **Roy P. Hamilton**, who has joined the St. Louis-San Francisco as director of safety.

J. P. Whalen has been appointed superintendent of shops of the Missouri Pacific, with headquarters at North Little Rock, Ark., succeeding **A. Hubener**, who has retired.

H. B. Reed, superintendent of yards of the Pullman Company, at Chicago, has been appointed chief maintenance officer, with jurisdiction over yards, mechanical, stores, purchasing and engineering departments. Mr. Reed is succeeded by **C. E. Foutz**, assistant superintendent of yards.

J. C. Bowden, division trainmaster of the Missouri Pacific, with headquarters at Kingsville, Tex., has been appointed trainmaster of the Vanderbilt, Kingsville, Corpus Christi, Austwell and Victoria subdivisions, Kingsville division, with the same headquarters, succeeding **J. T. Davis**, who has been granted a leave of absence due to ill health. Mr. Bowden is succeeded by **R. D. Morris**.

A. F. Winkel, director of personnel for the Missouri-Kansas-Texas, at Dallas, Tex., has been promoted to assistant general manager there, succeeding **O. W. Campbell**, who has been granted a leave of absence. Mr. Winkel is succeeded by **E. J. Hamman**. **W. N. Taylor** has been promoted to assistant superintendent of safety—rules examiner, at Dallas. A photograph of Mr. Winkel and a sketch of his career appeared in the *Railway Age* of December 28, 1946, in connection with his promotion to director of personnel.

TRAFFIC

Frank L. Haworth has been appointed general agent of the Chicago Great Western at Cincinnati, Ohio, succeeding **A. W. Nelson**, who has retired after a railroad career of 43 years.

Willis T. Carpenter, Jr., commercial agent of the Southern, has been appointed district freight agent, with headquarters as before at Greensboro, N. C., succeeding **Ernest J. West**, who has retired after more than 53 years of service. **Charles E. Donaldson** has been appointed division freight and passenger agent, with headquarters at Bristol, Va.-Tenn., succeeding **Walter E. Allen**, who has retired after more than 53 years of service.

H. H. Spragins has been appointed industrial commissioner of the St. Louis Southwestern, with headquarters at St. Louis, Mo., succeeding **C. C. Rockenback**, who has resigned to engage in other business. **R. M. Nall** has been appointed industrial agent, with headquarters at St. Louis, succeeding **J. C. Haich**, who has resigned to engage in other business.

B. B. Lacey, district freight and passenger agent of the Southern Pacific at Corpus Christi, Tex., has been transferred to Austin, Tex., succeeding the late **J. H.**

Evetts. Mr. Lacey is succeeded at Corpus Christi by **W. E. Brown**.

J. R. MacLeod, whose appointment as freight traffic manager of the Illinois Central, with headquarters at Memphis, Tenn., was reported in *Railway Age* of September 20, was born at Blue Springs, Neb., on April 30, 1887, and received his higher education at New York University. He entered railroad service in 1909 with the



J. R. MacLeod

Chicago, Rock Island & Pacific, at Chicago. In 1911 he became chief clerk to the general eastern freight agent of the St. Louis-San Francisco, with headquarters at New York; whence in 1912 he was transferred to Houston, Tex. He was appointed commercial agent of the Gulf Coast Lines in 1916, with headquarters at Baton Rouge, La., and from 1922 to August, 1926, he served in various capacities in the general freight department of the Kansas City Southern, at Kansas City, Mo.

Mr. MacLeod began his Illinois Central career in August, 1926, as assistant general freight agent, at St. Louis, Mo., and in March, 1932, he was named general freight agent, at Memphis, Tenn. In February, 1935, he was advanced to assistant freight traffic manager, with the same headquarters, the position he held at the time of his recent promotion.

Robert K. Hurlbut, ticket agent of the Chicago, Milwaukee, St. Paul & Pacific at Madison, Wis., has been promoted to district passenger agent there, succeeding **M. L. Olson**, who has resigned to engage in business in California.

Kenneth Cameron has been appointed general agent of the St. Louis Southwestern at Nashville, Tenn., succeeding **R. D. Klein**, who has been transferred to the road's industrial department.

ENGINEERING & SIGNALING

Sidney A. Law, traveling engineer—safety, of the Illinois Central, with headquarters at Chicago, has retired after 54 years of service with the railroad.

Richard W. Willis, assistant chief engineer of the Chicago, Burlington & Quincy, with headquarters at Chicago, has

retired after nearly 50 years of service. **C. J. McCarty**, division engineer at Aurora, Ill., also has retired.

MECHANICAL

J. A. Welsch, shop superintendent of the Illinois Central, with headquarters at Paducah, Ky., has been promoted to superintendent car department, at Chicago. He succeeds **H. H. Young**, who returns to Centralia, Ill., as superintendent of the car shop there, upon his own request. Mr. Young succeeds **W. C. Meyer**, who is on leave of absence due to illness. Mr. Welsch is succeeded by **C. T. Eaker**, master mechanic at Paducah, who in turn is succeeded by **R. E. Whittaker**, assistant master mechanic at Markham yard, near Chicago. **W. B. Henley**, general car foreman at Mattoon, Ill., has been appointed assistant superintendent of the car shop at Centralia.

J. H. Saltzgaber, whose appointment as superintendent of equipment of the Cleveland, Cincinnati, Chicago & St. Louis (part of the New York Central system), with headquarters at Indianapolis, Ind., was reported in *Railway Age* of September 13, was born in Van Wert county, Ohio, on October 28, 1893, and entered the serv-



J. H. Saltzgaber

ice of the New York Central in 1910 as a machinist apprentice. On June 1, 1928, he became night enginehouse foreman, at LaFayette, Ind., and on December 1 of the same year he was named enginehouse and car foreman, at Benton Harbor, Mich. Mr. Saltzgaber was appointed night enginehouse foreman at Kankakee, Ill., on August 16, 1929, became enginehouse foreman at the same point on July 10, 1930, and was promoted to general foreman at Cincinnati, Ohio, on May 1, 1939. Five months later he was appointed assistant master mechanic, with headquarters at Bellefontaine, Ohio, where he served until July 1, 1942, when he became master mechanic, at Indianapolis. On May 1, 1946, he was advanced to assistant superintendent of equipment, the position he held at the time of his recent promotion.

PURCHASES AND STORES

P. E. Welch has been appointed general storekeeper of the Southern Pacific,



Freedom

from
CARRYOVER
... with the
Elesco Steam
Dryer System

●
*quickly amortizes
its investment
cost.*

THE
SUPERHEATER
COMPANY

Representative of AMERICAN THROTTLE COMPANY, INC.

60 East 42nd Street, NEW YORK

122 S. Michigan Ave., CHICAGO

Montreal, Canada, THE SUPERHEATER COMPANY, LTD.



A-1888 (A-930-A-1267)

Superheaters • Superheater Pyrometers • Exhaust Steam Injectors • Steam Dryers • Feedwater Heaters • Steam Generators • Oil Separators • American Throttles

with headquarters at Houston, Tex., succeeding **L. B. Wood**, who has retired after more than 42 years of service with the railroad.

J. F. Brown, assistant to purchasing agent of the Virginian, with headquarters at Norfolk, Va., has been appointed general storekeeper, with headquarters at Princeton, W. Va., succeeding **J. H. McGlothlin**, who has retired at his own request after 36 years of service. **F. Warren Eller** has been appointed assistant to purchasing agent at Norfolk, succeeding Mr. Brown.

Mr. McGlothlin was born at Ravenswood, W. Va., on September 29, 1880, and entered railroad service on July 17, 1902, as clerk in the auditor's office of the Pennsylvania at Pittsburgh, Pa. In April, 1903, he became a clerk for the Adams Express Company at Wheeling, W. Va., going with the Baltimore & Ohio on July 1, 1904, where he served as clerk at Holloway, Ohio, and as clerk and storekeeper at Lorain, Ohio, and Cleveland; Baltimore, Md.; Connellsville, Pa.; and Parkersburg, W. Va. On January 17, 1912, Mr. McGlothlin went with the Virginian as clerk in the stores department, becoming chief clerk in that department on October 11, 1916. He was appointed general storekeeper on April 4, 1924, which position he held until his retirement.

William B. Joachim, Jr., assistant purchasing agent of the Lehigh & New England, has been appointed purchasing agent of that road and the Lehigh Coal & Navigation Company, with headquarters at Philadelphia, Pa., succeeding the late **Robert M. Liversidge**.

A. J. Uttich has been appointed purchasing agent of the Pullman Company, at Chicago, succeeding **W. T. Stewart**, who has retired after 52 years of service with the company.

Arthur S. Wilkinson, assistant to purchasing agent of the Richmond, Fredericks-



Arthur S. Wilkinson

burg & Potomac, has been elected purchasing agent, with headquarters as before at Richmond, Va., succeeding **R. J. Rouse**, who has retired after 44 years of service with this road. Mr. Wilkinson entered the service of the Richmond, Fredericksburg & Potomac on March 10, 1910, as

a clerk in the stores department. He became assistant storekeeper in 1912, and on July 1, 1931, he transferred to the purchasing agent's office as chief clerk. Mr. Wilkinson was appointed assistant to purchasing agent on February 24, 1939.

Mr. Rouse entered the service of the R. F. & P. on November 1, 1903, as a clerk, handling purchases under the direction of the general manager. He became purchasing agent on February 1, 1905, which position he held until his retirement.

SPECIAL

Roy P. Hamilton, general safety supervisor of the Southern at Cincinnati, Ohio, has resigned that position to become superintendent of safety of the St. Louis-San Francisco, with headquarters at St. Louis, Mo. **A. J. Finn**, director of accident prevention at Springfield, Mo., has been appointed general safety supervisor of the railroad.

Arthur D. Thatcher, assistant chief special agent and claim agent of the Western Pacific at San Francisco, Cal., has been appointed chief special agent and general claim agent, with the same headquarters, succeeding **Walter R. Groom**, who has retired.

V. J. Boyd has been appointed special representative in charge of the comptroller's reverification bureau of the Illinois Central at Chicago, succeeding **O. W. Farnham**, who has retired after 35 years of service.

Robert C. Hendon, formerly with the Federal Bureau of Investigation, has been appointed manager of the newly-created prevention and security department of the Railway Express Company.

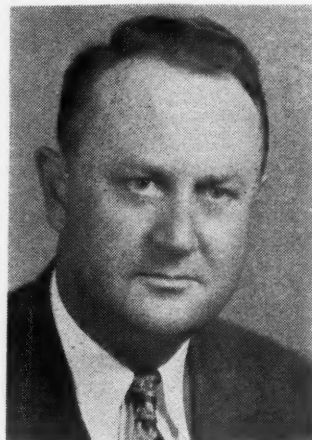
Walter R. Groom, chief special agent and general claim agent of the Western Pacific, with headquarters at San Francisco, Cal., will retire on September 30, after 41 years of railroad service, of which the last 36 were with the Western Pacific.

Mr. Groom was born in Washington county, Kan., in 1879, and entered railroad service in 1906 as a division special agent of the Chicago, Burlington & Quincy, with headquarters at St. Joseph, Mo. Five years later he entered the service of the Western Pacific as chief special agent. In 1935 he was also appointed general claim agent of the road.

In connection with the recent creation of a separate work-equipment department on the Chesapeake & Ohio, the following appointments have been made. **R. K. Johnson**, supervisor of reclamation at Barboursville, W. Va., has been appointed supervisor of work equipment and reclamation; **W. H. Sims**, signal inspector, has been appointed supervisor of reclamation; **N. W. Hutchison**, assigned to special duties under the engineer maintenance of way and chief engineer at Richmond, Va., has been appointed engineer of work equipment; **W. H. Harrison**, assistant cost engineer, Richmond, has been appointed assistant engineer of work equipment; **H. D. Bowen**, general foreman, reclamation plant, at Barboursville, has been ap-

pointed supervisor of work equipment; and **L. W. Ross**, chief clerk, reclamation plant, has been appointed assistant to superintendent of work equipment and reclamation. All of the above will have headquarters at Barboursville except Mr. Harrison, who will be located at Richmond, Va.

Mr. Johnson was born on March 5, 1898, at Rodgersville, Tenn., and received his education in the public schools and through a series of correspondence courses.



R. K. Johnson

His railway career began in 1916, when, during his summer vacation, he worked as a signal helper on the Wabash. Upon completing his school work, he re-entered the service of the Wabash in 1917 as a signal helper, and later in the same year, left the railroad to become connected with the Western Union Telegraph Company. In 1918, Mr. Johnson entered the employ of the Chesapeake & Ohio as a signalman, later leaving the company to join the Indiana Bell Telephone Company. After serving this company as a lineman, telephone repairman and switchboard repairman, he returned to the Chesapeake & Ohio in 1920 as a signal maintainer, and in January, 1923, was appointed acting supervisor of signals and water supply, with headquarters at Peru. In June of the same year, Mr. Johnson was appointed supervisor of signals and water supply at Peru. He was appointed supervisor of reclamation on November 16, 1937, which position he held at the time of his latest appointment.

OBITUARY

M. J. Byrnes, chief of personnel of the Northern Pacific, with headquarters at St. Paul, Minn., died of a heart ailment at his hotel in Chicago on September 25.

Robert M. Liversidge, purchasing agent of the Lehigh & New England at Philadelphia, Pa., died recently. Mr. Liversidge was born at Worcester, Mass., on November 28, 1899, and attended Northeastern University Engineering School, Worcester. He entered railroad service in November, 1922, with the Lehigh & New England and from July, 1924, to July, 1930, he served as chief clerk to purchasing agent, becoming assistant purchasing agent on the latter date. Mr. Liversidge was promoted to purchasing agent in October, 1945, which position he held until his death.

for Mass Production

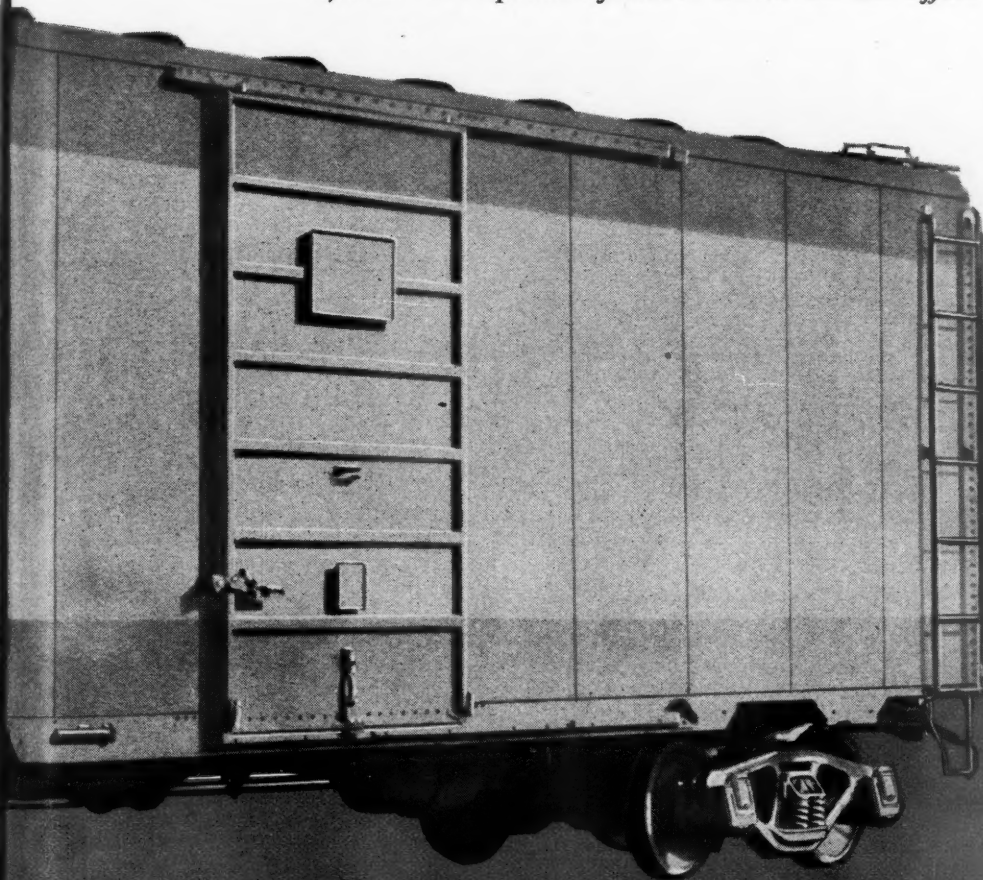
A High Quality, Efficient, Economical Box Car

To meet the need for continuous production and faster deliveries, the P-S-1 is designed on the principle of standardization. This permits longer runs without radical change in manufacturing operations on the basic model... increased output and reduced cost.

In designing the P-S-1, our engineers

were guided by an intimate knowledge of railroad requirements and a wealth of experience in building box cars. Railroads have responded to the advantages of this car with growing interest—with orders for many thousands since the P-S-1 model was recently introduced.

**P-S-1 specifications are not entirely arbitrary or inflexible. Buyers are offered some optional features which do not affect line production.*



© 1947 P.-S. C. H. CO.

Pullman-Standard

CAR MANUFACTURING COMPANY

CHICAGO • NEW YORK • CLEVELAND • WASHINGTON, D. C. • PITTSBURGH • BIRMINGHAM • WORCESTER, MASS.

SAN FRANCISCO SALES REPRESENTATIVE, MARK NOBLE

Operating Revenues and Operating Expenses of Class I Steam Railways

Compiled from 126 monthly reports of revenues and expenses representing 130 Class I steam railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF JULY 1947 AND 1946

Item	United States		Eastern District		Southern District		Western District	
	1947	1946	1947	1946	1947	1946	1947	1946
Miles of road operated at close of month	227,278	227,501	53,733	53,780	46,158	46,266	127,387	127,455
Revenues:								
Freight	\$557,881,454	\$513,322,616	\$206,835,600	\$195,660,926	\$103,437,832	\$104,954,468	\$247,608,022	\$212,707,222
Passenger	93,641,521	112,384,428	47,595,295	53,797,128	14,406,458	17,120,808	31,639,768	41,466,492
Mail	10,900,930	10,316,161	3,985,298	3,770,837	1,958,121	1,885,902	4,957,511	4,659,422
Express	8,217,993	5,639,714	1,995,527	59,956	1,019,073	720,981	5,203,303	4,858,777
All other operating revenues	34,719,516	32,448,819	15,105,657	14,802,320	5,526,510	4,337,840	14,087,349	13,308,659
Railway operating revenues	705,361,414	674,111,738	275,517,377	268,091,167	126,347,994	129,019,999	303,496,043	277,000,572
Expenses:								
Maintenance of way and structures	106,387,510	100,675,916	39,776,379	37,324,101	21,968,907	20,594,079	44,642,224	42,757,756
Depreciation	10,131,769	10,015,549	4,333,964	4,285,576	1,742,790	1,700,636	4,055,015	4,029,337
Retirements	1,145,199	1,051,851	221,335	150,605	373,122	78,125	550,742	823,121
Deferred maintenance	*737,053	*594,941	*14,468	*125,771	*28,146	*19,095	*694,439	*450,075
Amortization of defense projects	108,018	58,002	12,734	18,777	30,391	12,221	6,4893	27,004
Equalization	*2,960,801	362,557	*1,816,261	*261,405	*947,740	284,194	*196,800	339,772
All other	98,700,378	89,782,898	37,039,075	33,256,323	20,798,490	18,537,998	40,862,813	37,988,577
Maintenance of equipment	126,037,500	121,696,243	52,616,984	50,842,248	25,121,176	24,156,789	48,299,340	46,697,206
Depreciation	19,313,133	18,444,990	7,657,820	7,576,705	4,304,004	3,946,903	7,351,309	6,921,382
Retirements	*47,113	*47,940	*7,141	*6,761	*4,785	*20,296	*35,187	*20,883
Deferred maintenance and major repairs	*343,601	*306,101	20	*3,410	*74,335	*85,083	*269,286	*217,608
Amortization of defense projects	1,238,232	896,867	458,154	371,798	248,611	152,540	531,467	372,529
Equalization	*446,663	*381,470	*12,161	29,033	*402,411	*308,386	*32,091	*102,117
All other	106,323,512	103,089,897	44,520,292	42,874,883	21,050,092	20,471,111	40,753,128	39,743,903
Traffic	14,617,565	13,942,429	5,147,698	5,090,857	3,057,904	2,723,864	6,411,963	6,127,708
Transportation—Rail line	277,232,093	274,625,321	117,982,355	118,066,336	49,031,881	50,403,550	110,217,857	106,155,435
Miscellaneous operations	11,273,982	11,763,195	4,134,910	4,187,580	1,476,682	1,453,285	5,662,390	6,122,330
General	19,813,230	19,516,265	7,705,930	7,502,061	4,327,169	4,227,249	7,780,131	7,786,955
Railway operating expenses	555,361,880	542,219,369	227,364,256	223,013,183	104,983,719	103,558,816	223,013,905	215,647,370
Net revenue from railway operations	149,999,534	131,892,369	48,153,121	45,077,984	21,364,275	25,461,183	80,482,138	61,353,202
Railway tax accruals	74,948,797	54,905,884	23,846,837	17,872,261	13,521,940	13,102,318	37,580,020	23,931,350
Pay-roll taxes	29,400,452	21,703,145	12,240,914	8,967,429	5,555,392	4,176,476	11,604,146	8,559,240
Federal income taxes	21,322,717	12,006,575	2,612,568	337,710	3,268,331	4,729,038	15,441,818	6,939,827
All other taxes	24,225,628	21,196,164	8,993,355	8,567,122	4,698,217	4,196,804	10,534,056	8,432,238
Railway operating income	75,050,737	76,986,485	24,306,284	27,205,723	7,842,335	12,358,865	42,902,118	37,421,897
Equipment rents—Dr. balance	10,740,794	10,487,257	4,172,261	4,634,462	*957,584	*299,930	7,526,117	6,152,725
Joint facility rent—Dr. balance	3,351,492	3,469,557	1,631,488	1,720,748	519,507	471,532	1,200,497	1,277,277
Net railway operating income	60,958,451	63,029,671	18,502,535	20,850,513	8,280,412	12,187,263	34,175,504	29,991,895
Ratio of expenses to revenues (per cent)	78.7	80.4	82.5	83.2	83.1	80.3	73.5	77.9

FOR THE SEVEN MONTHS ENDED WITH JULY 1947 AND 1946

Item	United States		Eastern District		Southern District		Western District	
	1947	1946	1947	1946	1947	1946	1947	1946
Miles of road operated at close of month	227,361	227,531	53,732	53,811	46,197	46,266	127,432	127,454
Revenues:								
Freight	\$3,932,910,545	\$3,141,517,578	\$1,506,402,746	\$1,168,511,446	\$832,131,989	\$671,988,232	\$1,594,375,810	\$1,301,017,900
Passenger	550,820,632	784,134,487	274,728,944*	349,031,574	91,803,019	135,657,504	184,288,669	299,445,409
Mail	77,319,256	72,285,952	27,791,770	25,294,799	14,251,973	13,290,721	35,275,513	33,700,432
Express	69,179,259	50,230,629	21,438,249	3,487,038	12,904,279	8,223,125	34,836,731	38,520,466
All other operating revenues	225,030,123	203,539,824	99,952,052	93,272,251	38,485,573	29,745,988	86,592,488	80,521,585
Railway operating revenues	4,855,259,815	4,251,708,470	1,930,313,761	1,639,597,108	989,576,833	858,905,570	1,935,369,221	1,753,205,792
Expenses:								
Maintenance of way and structures	675,104,698	666,284,418	243,364,207	234,679,543	149,312,320	144,843,099	282,428,171	286,761,776
Depreciation	70,858,913	70,083,794	30,323,956	30,076,575	12,132,504	11,863,990	28,402,453	28,143,229
Retirements	5,028,926	4,308,533	1,000,335	916,877	1,311,325	610,383	2,717,266	2,781,273
Deferred maintenance	*2,871,102	*3,224,522	*183,656	*675,291	*173,268	77,711	*2,514,178	*2,626,942
Amortization of defense projects	733,927	189,712	62,631	85,332	212,307	66,372	458,989	38,008
Equalization	3,975,104	12,856,941	1,513,875	6,203,652	848,953	3,541,068	1,612,276	3,112,221
All other	597,378,930	582,069,960	210,647,066	198,072,398	134,980,499	128,683,575	251,751,365	255,313,987
Maintenance of equipment	883,262,449	844,549,582	378,823,775	351,025,255	179,219,465	163,691,456	325,219,209	329,832,871
Depreciation	133,841,377	128,873,795	53,975,727	52,990,623	29,345,390	27,579,757	50,520,260	48,303,415
Retirements	*254,067	*256,903	*43,813	*90,197	*69,655	*81,815	*140,599	*84,891
Deferred maintenance and major repairs	*2,908,536	*2,039,949	*2,820	*172,778	*1,192,929	*166,784	*1,712,787	*1,700,387
Amortization of defense projects	8,732,521	4,682,934	3,252,525	1,981,333	1,753,843	756,018	3,726,153	1,945,583
Equalization	483,381	1,172,821	*132,828	11,497	614,979	1,088,670	1,230	72,654
All other	743,367,773	712,116,884	321,774,984	296,304,777	148,767,837	134,515,610	272,824,952	281,296,497
Traffic	99,668,672	95,621,527	34,515,952	34,183,930	21,310,939	19,172,145	43,841,781	42,265,452
Transportation—Rail line	1,934,451,501	1,811,854,661	842,732,439	777,424,797	361,978,413	336,337,509	729,740,649	698,092,355
Miscellaneous operations	72,697,444	73,021,896	27,088,529	28,064,361	10,935,100	10,672,870	34,673,815	34,284,665
General	138,412,834	136,292,321	53,648,807	52,980,182	30,216,764	28,973,428	54,547,263	54,338,711
Railway operating expenses	3,803,597,598	3,627,624,405	1,580,173,709	1,478,358,068	752,973,001	703,690,507	1,470,450,888	1,445,575,830
Net revenue from railway operations	1,051,662,217	624,084,065	350,140,052	161,239,040	236,603,832	155,215,063	464,918,333	307,629,962
Railway tax accruals	526,519,360	321,334,107	181,343,809	103,271,602	122,912,828	84,454,797	222,262,723	133,607,708
Pay-roll taxes	199,226,206	146,757,926	83,420,942	60,056,572	39,059,325	28,221,986	76,745,939	58,479,368
Federal income taxes	165,234,607	24,368,080	35,410,650	*16,232,809	50,305,069	24,647,589	79,518,888	15,953,300
All other taxes	162,058,547	150,208,101	62,512,217	59,447,839	33,548,434	31,585,222	65,997,896	59,175,040
Railway operating income	525,142,857	302,749,958	168,796,243	57,967,438	113,691,004	70,760,266	242,655,610	174,022,254
Equipment rents—Dr. balance	71,755,242	62,264,053	34,041,342	27,040,332	*2,703,090	*146,711	40,416,990	35,370,432
Joint facility rent—Dr. balance	24,006,171	22,693,648	11,640,650	11,300,405	3,713,479	3,293,238	8,652,042	8,100,005
Net railway operating income	429,381,444	217,792,257	123,114,251	19,626,701	112,680,615	67,613,739	193,586,578	130,551,817
Ratio of expenses to revenues (per cent)	78.3	85.3	81.9	90.2	76.1	81.9	76.0	82.5

* Decrease, deficit, or other reverse item.

† Railway operating revenues are after deduction of \$1,868,363 for the seven months ended with July 1946, to create a reserve for land grant deductions in dispute.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

GENERAL NEWS

(Continued from page 69)

Mail Pay Proceeding Resumed Despite Post Office Plea

Efforts by the Post Office Department to further delay the resumption of hearings in the Docket No. 9200 proceeding, wherein the railroads are seeking an increase of 45 per cent in rates for handling United States mail, were thwarted this week when Commissioner Mitchell, presiding over the case, instructed department counsel to begin cross-examination of J. P. Cole, assistant to the vice-president of the Association of American Railroads, and statistical witness for the petitioning carriers.

The resumption of hearings on September 30, following an adjournment of two months, was marked by a request submitted by F. J. Delany, general solicitor of the department, for a further delay of "at least six months." The railroads, in turn, immediately asked that, should such a request be granted, the commission authorize an interim increase of not less than 35 per cent of the rates now in force retroactive to February 19, when the original petition was filed.

According to Mr. Delany, the department needs additional time in which to study railroad exhibits and prepare surveys and studies of its own. He said the department received an appropriation of \$250,000 just prior to the recess of Congress in July—it had asked for \$1,000,000—and that it has had insufficient time in which to recruit personnel to work on the case.

Mr. Delaney told the commission that the railroad exhibits which the department has examined to date were incomplete and contained many "misrepresentations," of which, he said, more were uncovered by department "amateurs" than by "experts of the commission." He asserted that the department is the "only customer of the railroads which pays for space it doesn't use," adding that such space could be described as "featherbedded."

Replying to Mr. Delany's contentions, Guernsey Orcutt, general attorney of the Pennsylvania and chief counsel for the petitioning railroads, told the commission that the railroads, through congressional action, have no choice as to whether or not they will carry the mail for which services, he added, the carriers are entitled to "fair and adequate" compensation. He said the railroads have no objection to a six-months' delay provided the commission grants interim relief to help offset increased costs borne principally by the recent 15½ cents per hour wage increase to non-operating employees.

Southern's Diner Rules Again Found Non-Prejudicial

Reporting on further hearing in the so-called *Henderson* case, wherein its prior report was appealed to the courts, the Interstate Commerce Commission has found that the Southern's present dining-car regulations, requiring separate accommodations for white and negro patrons, are not in violation of the Interstate Commerce Act. The proceeding, No. 28895, involved the

**BRAKE EQUIPMENT
& SUPPLY COMPANY**
Better-Built AIR BRAKE PARTS

*Not an Imperfection
in a Carload*

Every standard air brake part shipped by Brake Equipment & Supply Company is, thanks to precision workmanship and rigid inspection, a perfect duplicate of the original part.

Precision is a hobby with us, uncompromising inspection a habit. The result is flawless uniformity—your assurance of perfect interchangeability. BE&S parts are fully guaranteed as to material, workmanship, and quality. Deliveries, both current and future, are prompt and dependable. Phone the nearest PORTER district office for a BE&S representative.



H. K. PORTER COMPANY, Inc.

Pittsburgh 22, Pennsylvania
Brake Equipment & Supply Division

7001 W. 66th Place, Chicago 38, Ill.

District Office in Principal Cities

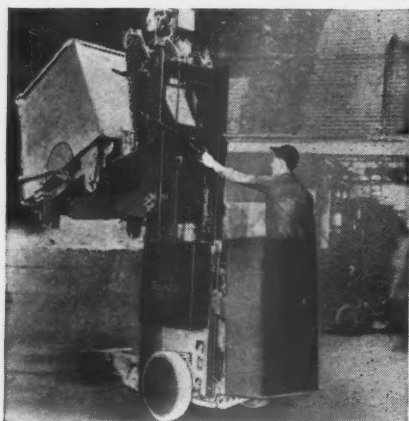
Even if you now use Industrial Trucks you may still cut handling costs!

Here's how one **BAKER TRUCK** customer did it:

In many plants Material Handling—like Topsy—just grew. Equipment for mechanizing individual handling operations was acquired piece-by-piece as needed. Although time and cost advantages were gained in each case, a lack of integration between departments usually prevented full realization of all the benefits possible.

Take the case of the Hammermill Paper Company in Erie, Pa. Their problem involved handling in process, storing, routing and loading an annual production well over 100,000,000 lbs. of some 3,000 kinds, sizes and colors of paper. Each department had its own electric trucks—and controlled its own handling operations.

Two years ago, after extensive study by its engineers, the company incorporated all trucks and handling personnel under one department, headed by a qualified expert who administered



Substantial savings were made by using a Baker Hy-Lift Truck with special tilt-type platform for loading beaters with pulp.

details and expedited the material handling program. Immediate benefits were:

1. Full utilization of trucks and personnel
2. More material handled with same equipment
3. Better maintenance of equipment
4. Improved transportation service in operating departments
5. Reduction in material handling costs

A survey, after the new program had functioned for six months, showed that centralized, as against departmental control, resulted in the utilization of existing trucks to the best advantage in receiving, production, warehousing and shipping departments—providing maximum service at minimum cost.

The program had also resulted in the adoption of the pallet-fork truck method for handling raw, in-process and finished product. Materials such as clay, starch and talc are received in bags. Substantial savings were made by palletizing these bags on arrival and transporting unit loads by fork truck to storage and to production. Still further savings will come when all suppliers can be persuaded to ship material on pallets—negotiations for which are under way. It now takes about 14 hours to palletize a car of 1600 bags—weighing about 50 lbs.—but when material arrives already palletized unloading and warehousing can be completed in about 2 hours per car.

Centralization of handling operations can be applied in large or small plants. If you want maximum benefits from your modern handling equipment, a Baker Material Handling Engineer can help you set up a central control in your plant.

Palletizing also resulted in cutting unloading time of knocked-down shipping cartons from 24 hours per car, when they arrived loose, to approximately 3 hours, since they arrive in unit loads strapped to pallets, permitting fork-truck handling.

Additional benefits from centralized control of handling were reported when another survey was made at the end of 1946. Departmental superin-



Baker Fork Truck picking up unit load of lap pulp for loading into box-car for shipment.

tendents, freed of material handling problems could now concentrate on production. Plant safety had been improved. Extension of mechanized handling eliminated much heavy manual labor—making these men available for higher paid, productive work. Work flow has been made more efficient and direct. With all handling under one control, proper allotment assures adequate equipment for all departments. Maintenance costs on trucks were lowered. The pallet-fork truck method, besides saving as mentioned, effectively solved the problem of handling a wide diversity of products and sizes of packages



Baker Fork Truck tying pallet loads of bagged starch in storage. Note method of "locking" sacks to prevent side-slipping.

—incoming materials and out-going products. A new warehouse, just completed, was designed around mechanized handling of unit loads. Tractor-trailer trains are assisted by fork trucks—permitting efficient, orderly storage, full utilization of space by tiering, and speeding order assembly for shipment.

complaint of Elmer W. Henderson, and the prior report, by the commission's Division 2, found that, while there was no basis for an award of reparation, Mr. Henderson was subjected to undue and unreasonable prejudice by the regulations in effect when he claimed he was refused service in the dining car of a Washington, D. C.,—Atlanta, Ga., train on May 17, 1942.

The present report affirms those findings while sanctioning the regulations now in effect, as noted above. These present regulations require that a specified table, seating four persons, be curtained off and reserved "exclusively for colored passengers," and that the other tables in the diner "shall be reserved exclusively for white passengers." The commission's report also reveals that the Southern is having permanent wooden partitions installed in its diners to set off the table reserved exclusively for colored patrons; and at the same time it is fitting the space opposite the table thus reserved as an office for the steward.

The new regulations were established on March 1, 1946, after the United States District Court for the District of Maryland had issued its decision on Mr. Henderson's appeal and remanded the case to the commission for the further hearing out of which the present report has come. When Mr. Henderson made his journey, the applicable regulations permitted the use of the curtained-off tables for white passengers if all other seats had been taken and no colored passengers had presented themselves for meals. This had been done when Mr. Henderson appeared in the diner, and the steward refused to seat him at one of the tables purportedly reserved for negroes but partially occupied at the time by white patrons.

The reasoning leading to the conclusion that the new regulations meet the requirements of the court's decision is along the same lines as that employed by the commission earlier this year when it made the same disposition of a like complaint against the Southern by another negro—Benjamin E. Mays. The report in the *Mays* case was reviewed in the *Railway Age* of April 26, page 868. As he did in the *Mays* case, Chairman Aitchison here, too, filed a brief separate expression, dissenting in part; and Commissioner Mahaffie again agreed with him. Commissioner Mitchell did not participate.

New Diner-Lunch Cars on N. P.

Continuing its program of progressively streamlining the "North Coast Limited," operating between Chicago and the Pacific Northwest, the Northern Pacific has placed into service on this train six new lightweight diner-lunch cars, E. E. Nelson, passenger traffic manager, announced last week. A fleet of new sleeping and observation cars are scheduled for service on the "North Coast Limited" early next spring, it was stated.

Sees Greyhound in Illegal Control of Southeastern Stages

Examiner M. L. Winson has recommended in a proposed report that the Interstate Commerce Commission find that control and management of Southeastern



Members
Electric Industrial
Truck Association

BAKER INDUSTRIAL TRUCK DIVISION
of The Baker-Raulang Company
2172 WEST 25th STREET • CLEVELAND, OHIO
In Canada: Railway & Power Engineering Corp., Ltd.

Baker INDUSTRIAL TRUCKS

Stages, Inc., in Atlantic Greyhound Corporation has been accomplished and is continuing in violation of section 5(4) of the Interstate Commerce Act. The report in No. MC-F-2584 recommends further that the commission order Atlantic and other respondents (officers and directors of Atlantic and of the Greyhound Corporation) to "terminate such violation."

The examiner's conclusions are based upon evidence relating to Atlantic's 20 per cent stock interest in Southeastern. The interest was acquired in 1943, but the parties did not submit the transaction for commission consideration because they were advised by counsel that the acquisition of such "minority interest" did not require commission approval, "if no control or management of Southeastern were exercised." The examiner concedes that Southeastern's operations or policies were not changed after Atlantic acquired its interest, but he asserts that section 5(4) "is directed at the power to control or manage in a common interest, and does not require a demonstration of the power."

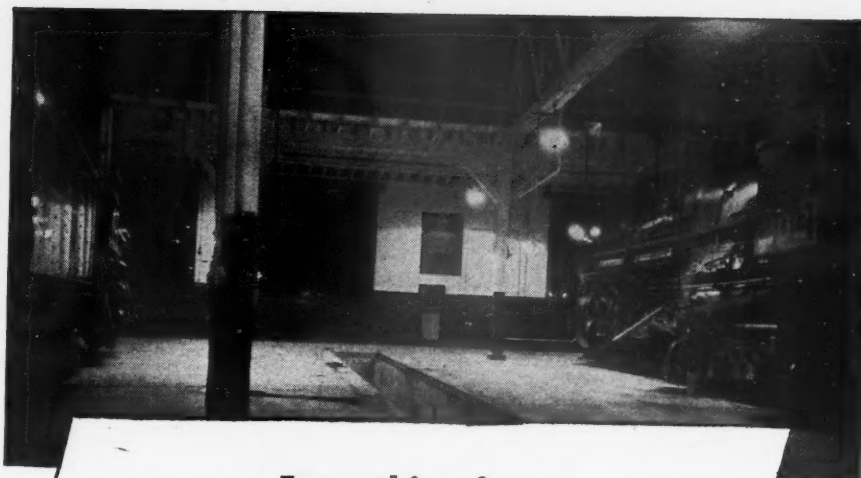
Reed Defers Hearing on I. C. C. Handling of Bankrupt Roads

Senator Reed, Republican of Kansas, has postponed indefinitely a probe by a subcommittee of the Senate committee on interstate and foreign commerce into the Interstate Commerce Commission's handling of railroad reorganization cases under Section 77 of the Bankruptcy Act. As reported in *Railway Age* of September 20, page 69, the hearings were to have started in Washington, D. C., on September 30. Senator Reed is chairman of the subcommittee, which also consists of Senator Hawks, Republican of New Jersey, and Senator Meyers, Democrat of Pennsylvania.

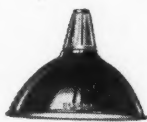
It is understood that the postponement was due to the pressure of work on the commission which had before it that phase of the Ex Parte 166 rate-increase application wherein the railroads are seeking immediate relief in the form of an interim-increase of 10 per cent. Proceedings before the commission on the interim plea were completed September 19.

Senator Reed, meanwhile, has renewed his threat to impeach the commission on the basis of its handling of railroad reorganization proceedings. The subcommittee chairman, who, it is understood, is contemplating a trip to Europe this month with members of the Senate appropriations committee, said he intended to call before the subcommittee each member of the commission in order to "inquire into his part in preparation of the various reorganization plans and on what he based his proposal for the new capitalization."

Senator Reed is co-sponsor with Senator Meyers of a bill, S. 249, which would set up procedures for the voluntary readjustment of railroad financial structures, including provisions making such procedures applicable to certain railroads already undergoing reorganization as well as to roads not yet in the hands of the court. The bill was left pending on the Senate calendar when Congress adjourned in July, and the House likewise failed to act on a similar measure, H.R. 3980, sponsored by Representative Reed, Republican of Illinois.



Everything for INDOOR LIGHTING from a single, near-by source!



Via Graybar, you can get specialized lighting fixtures, lighting transformers, controls, wiring supplies, and all types of G-E lamps for your shops, roundhouses, pits, tunnels, stations, and offices.

Whatever your lighting requirements, Graybar can impartially recommend the correct lighting equipment for your particular needs from the most complete selection of lamps and lighting units available from any one source.

Graybar is also a convenient source of railroad pole-line supplies, communication equipment, and electrical repair-shop apparatus and tools. If you plan ahead with us now, we'll probably be able to deliver the things you want when you need them.

We suggest you call our nearest office and arrange to discuss your requirements with a Graybar Railroad Specialist. *Graybar Electric Company. Executive offices: Graybar Building, New York 17, N. Y.*

4754

OFFICES AND WAREHOUSES IN OVER 90 PRINCIPAL CITIES

60,000 ELECTRICAL ITEMS ARE DISTRIBUTED

THROUGHOUT THE NATION

...VIA

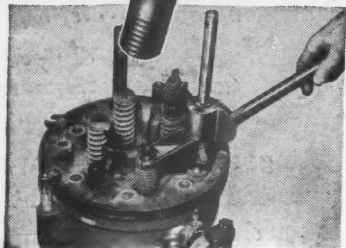
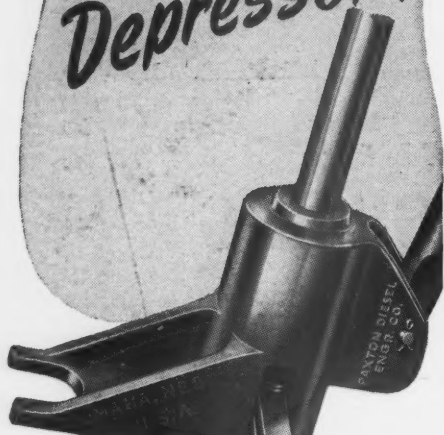
Graybar



I-Man

DIESEL

Valve Spring Depressor!



Single compact unit. Models available for most types of engines.

Save up to 50% in time and labor on dismantling and assembling Diesel engine valves by equipping your service shops with this new service tool.

Compresses valve spring to any point — holds it there. Safe and easy to apply. Makes valve dismantling and assembly quick, safe, easy.

Let us send you prices and literature. Write Dept. RA-2

paxton

DIESEL ENGINEERING COMPANY

Omaha 5, Nebraska

Meetings and Conventions

(Continued from page 70)

ASSOCIATION OF AMERICAN RAILROADS.—George M. Campbell, Transportation Bldg., Washington 6, D. C.

Operations and Maintenance Department.—J. H. Aydelott, Vice-president, Transportation Bldg., Washington 6, D. C.

Operating-Transportation Division.—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.

Operating Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Transportation Section.—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.

Communications Section.—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y. Annual meeting, October 21-23, 1947, Roney Plaza Hotel, Miami Beach, Fla.

Fire Protection and Insurance Section.—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y. Annual meeting, October 23-24, 1947, Hotel Stevens, Chicago, Ill.

Freight Station Section.—W. E. Todd, 59 E. Van Buren St., Chicago 5, Ill.

Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Protective Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Safety Section.—J. C. Caviston, 30 Vesey St., New York 7, N. Y.

Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Construction and Maintenance Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 16-18, 1948, Palmer House, Chicago, Ill.

Electrical Section.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.

Signal Section.—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y. Annual meeting, September 14-16, 1948, Hotel Statler, Buffalo, N. Y.

Mechanical Division.—Arthur C. Browning, 59 E. Van Buren St., Chicago 5, Ill.

Electrical Section.—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill.

Purchases and Stores Division.—W. J. Farrell (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C.

Freight Claim Division.—Lewis Pilcher, (Executive Vice-Chairman), 59 E. Van Buren St., Chicago 5, Ill.

Motor Transport Division.—Transportation Bldg., Washington 6, D. C.

Car Service Division.—W. C. Kendall, Chairman, Transportation Bldg., Washington 6, D. C.

Finance Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.

Accounting Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C.

Treasury Division.—E. R. Ford, Transportation Bldg., Washington 6, D. C. Annual meeting, October 8-10, 1947, New Ocean House, Swampscott, Mass.

Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.

ASSOCIATION OF RAILWAY CLAIM AGENTS.—F. L. Johnson, Gulf, Mobile & Ohio R. R., 340 W. Harrison St., Chicago 7, Ill. Annual meeting, May 19-21, 1948, French Lick Springs Hotel, French Lick, Ind.

BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.—E. C. Gunther, Duff-Norton Mfg. Co., 122 S. Michigan Ave., Chicago 3, Ill.

CANADIAN RAILWAY CLUB.—C. R. Crook, 4415 Marcell Ave., N. D. G., Montreal 28, Que. Regular meetings second Monday of each month, except June, July and August, Mount Royal Hotel, Montreal, Que.

CAR DEPARTMENT ASSOCIATION OF ST. LOUIS.—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis 3, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.

CAR DEPARTMENT OFFICERS' ASSOCIATION.—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—W. E. Angier, chief A. A. R. clerk, C. B. & Q. R. R., 547 W. Jackson Blvd., Chicago 6, Ill. Regular meetings, second Monday of each month, except June, July and August, Union Station, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Mann, 1840-42 Hotel Statler, McKinley Square, Buffalo 5, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

CHICAGO LUNCHEON CLUB OF MILITARY RAILWAY SERVICE VETERANS.—Col. R. O. Jensen.

Schiller Park, Ill. Luncheon, second Wednesday of each month, Chicago Traffic Club, Palmer House, Chicago, Ill.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—C. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark.

MAINTENANCE OF WAY CLUB OF CHICAGO.—C. R. Knowles, Room 2000, 105 W. Adams St., Chicago 3, Ill. Regular meetings, fourth Monday of each month, October through April, inclusive, except December, when the third Monday, Hardings at the Fair.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington 25, D. C. Annual meeting, November, 1948, Savannah, Ga.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—F. J. Armstrong, United States Radiator Corporation, United Artists Bldg., Detroit, Mich. Annual meeting, October 27-28, 1947, Jefferson Hotel, St. Louis, Mo.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November 20-21, 1947, Palmer House, Chicago, Ill.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill. Meeting and exhibit in connection with A. R. E. A. Convention, March 15-18, 1948, Amphitheatre, Chicago, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston 11, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pyc, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION.—E. N. Myers, Minnesota Transfer Ry., 1434 Iowa Ave., St. Paul 4, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB.—William S. Wollner, P. O. Box 458, San Rafael, Cal. Regular meetings, second Thursday of each alternate month at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Ill. Annual dinner, November 21, 1947, Hotel Stevens, Chicago, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—A. W. Brown, Room 1424, 30 Church St., New York 7, N. Y.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section, of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elise LaChance, Room 901, 431 S. Dearborn St., Chicago 5, Ill. Annual meeting, September 21-23, 1948, Chicago, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, O. and C. Company, 59 E. Van Buren St., Chicago 5, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 225 Bidwell Ave., Westleigh, Staten Island 2, N. Y.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.